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FINAL

SCREENING SITE INSPECTION REPORT  
CAST-CRETE CORPORATION  
TAMPA, HILLSBOROUGH COUNTY, FLORIDA  
EPA ID #: FLD004427662

Prepared Under  
TDD No. F4-8802-14  
CONTRACT NO. 68-01-7346

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FOR THE

WASTE MANAGEMENT DIVISION  
U.S. ENVIRONMENTAL PROTECTION AGENCY

DATE

OCTOBER 17, 1989

NUS CORPORATION  
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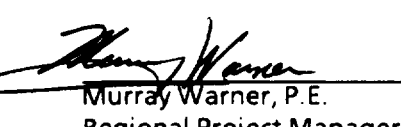
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## **NOTICE**

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## EXECUTIVE SUMMARY

Cast-Crete has been a concrete product manufacturer since 1955. The company uses oil-lubricated forms in the produce reinforced beams, lintels, seals and drainage structures. Cement trucks used to mix concrete for the operation were cleaned eight to ten times per day. Truck exteriors were washed with water and engines steam cleaned with degreasing solutions. Effluent from these operations together with oil-contaminated runoff flowed to an unlined holding pond located in the northwest corner of the property. Excess pondwater is discharged into a drainage ditch via a concrete flume. The drainage ditch discharges into a swamp. Drainage from the swamp then flows into Six Mile Creek. The quantity of detergents, lubricating oil and organic degreasing solvents deposited in the Cast-Crete holding impoundment is unknown.

The Hillsborough County Environmental Protection Commission (HCEPC) initially reported violations of Class III Surface Water Standards in site discharge and in receiving waters downstream of the discharge point. No effort was made by Cast-Crete to secure a permit. On August 8, 1985, FDER entered a Final Order requiring Cast-Crete to apply for an Industrial Wastewater Permit or cease discharging wastewater from the facility. Although Cast-Crete appealed the Order, they lost the appeal April 15, 1986. The company subsequently halted rock-washing operations and ceased discharging wastewater from the facility.

Cast-Crete is located in the Gulf Coastal Lowlands of the Mid-peninsular physiographic zone of Florida. This region is characterized by depositional slopes and marine terraces formed by the regression of the Gulf of Mexico. The climate is humid with an annual precipitation of 50.2 inches. Elevation of Hillsborough County ranges from 160 feet AMSL near Polk County to sea level at Tampa Bay.

The hydrogeology of Hillsborough County can be described in terms of three water bearing zones. The surficial aquifer is composed of Pleistocene and recent sand, clay, and marl and ranges from 0 to 150 feet thick. A secondary artesian aquifer occurs in the sand and limestone of the Miocene Hawthorn Formation. Although the Hawthorn reaches a maximum thickness of 250 feet in eastern Hillsborough County, it has been almost totally removed by erosion in the Tampa area. The principal artesian water bearing unit, the Floridan aquifer, consists of Eocene to Miocene units of alternating limestones and dolomitic limestones. The fresh water zone of the Floridan aquifer is approximately 1000 feet thick in the study area and its upper surface is 55 feet below land surface at the Cast-Crete



site. Absence of a confining unit and development of karst topography less than 4 miles from Cast-Crete strongly suggest that a hydrologic connection exists between the surficial and Floridan aquifers

A private well owned by Mr. Sonny Smith is the nearest groundwater well to the Cast-Crete property. Originally, the well was completed at 50 feet. However, the opening of the Hillsborough Heights County Landfill encouraged Mr. Smith to have his well deepened to 200 feet. This landfill is located on the east side of State Route 579 and is used for disposal of garbage and other types of refuse. Residents in the Cast-Crete study area obtain their water from private wells. Total population served by private wells completed in the Floridan aquifer within 4 miles of the site is 1140 (300 houses x 3.8). Approximately 3000 houses are located within 4 miles of Cast-Crete.

The analytical result from samples collected at Cast-Crete showed no contamination on-site, or contaminant migration from the site. Based on this information, FIT 4 recommends no further remedial action be planned for this facility.

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>ES-1</b>
<b>1.0 INTRODUCTION</b>	<b>1</b>
1.1 Objectives	1
1.2 Scope of Work	1
<b>2.0 SITE CHARACTERIZATION</b>	<b>3</b>
2.1 Site Background and History	3
2.2 Site Description	3
2.2.1 Site Features	3
2.2.2 Waste Characteristics	6
<b>3.0 REGIONAL POPULATIONS AND ENVIRONMENTS</b>	<b>7</b>
3.1 Population and Land Use	7
3.1.1 Demography	7
3.1.2 Land Use	7
3.2 Surface Water	7
3.2.1 Climatology	7
3.2.2 Overland Drainage	8
3.3 Groundwater	8
3.3.1 Regional Aquifer Description	8
3.3.2 Hydrogeology	8
3.3.3 Aquifer Use	10
3.4 Summary of Potentially Affected Populations and Environments	10
<b>4.0 FIELD INVESTIGATION</b>	<b>11</b>
4.1 Sample Collection	11
4.1.1 Sample Collection Methodology	11
4.1.2 Split Samples	11
4.1.3 Description of Samples and Sample Locations	11
4.1.4 Field Measurements	13
4.2 Sample Analysis	13
4.2.1 Analytical Support and Methodology	13
4.2.2 Analytical Data Quality	16
4.2.3 Presentation of Analytical Results	16
4.3 Summary of Field Investigation	21
<b>5.0 SUMMARY</b>	<b>22</b>
<b>REFERENCES</b>	<b>23</b>

## TABLE OF CONTENTS (continued)

<b><u>Section</u></b>	<b><u>Page No.</u></b>
<b>TABLES</b>	
Table 4-1 Descriptions of Sample Codes and Locations	14
Table 4-2 Record of Field Measurements	15
Table 4-3 Summary of Organic Analytical Results/Surface Water and Well Samples	17
Table 4-4 Summary of Inorganic Analytical Results/Surface Water and Well Samples	18
Table 4-5 Summary of Organic Analytical Results/Soil and Sediment Samples	19
Table 4-6 Summary of Inorganic Analytical Results/Soil and Sediment Samples	20
<b>FIGURES</b>	
Figure 1 Site Location Map	4
Figure 2 Site Layout Map	5
Figure 3 Sample Location Map	12
<b>APPENDICES</b>	
<b>APPENDIX A</b>	

## **1.0 INTRODUCTION**

The NUS Corporation Region 4 Field Investigation Team (FIT) was tasked by the U. S. Environmental Protection Agency (EPA), Waste Management Division to conduct two screening site inspections (SSI) at the Cast-Crete Corporation site in Tampa, Hillsborough County, Florida. The inspection was performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The task was performed to satisfy the requirements stated in Technical Directive Document (TDD) number F4-8802-14. The field investigations were conducted September 12, 1988.

### **1.1 OBJECTIVES**

The objectives of this investigation were to determine the nature of contaminants present at the site and to determine if a release of these substances has occurred or may occur. Further, this investigation sought to determine the possible pathways by which contamination could migrate from the site and the populations and environments it would potentially affect. Through these objectives, a recommendation was made regarding future activities at the site.

### **1.2 SCOPE OF WORK**

The objectives were achieved through the completion of a number of specific tasks. These activities were to:

- obtain information to prepare a site specific preliminary HRS
- provide EPA the necessary information to make decisions on any other actions warranted at the site
- obtain and review background materials relevant to the scoring of the site
- obtain information on local water supply systems
- conduct a survey of private wells

- determine location and distance to nearest potable well
- develop a site sketch to scale
- collect environmental soil, surface water, and well samples
- evaluate target population within a 4-mile radius of the site with regard to groundwater use, surface water use, and possibility of direct contact or fire and explosion hazard.

## **2.0 SITE CHARACTERIZATION**

### **2.1 SITE BACKGROUND AND HISTORY**

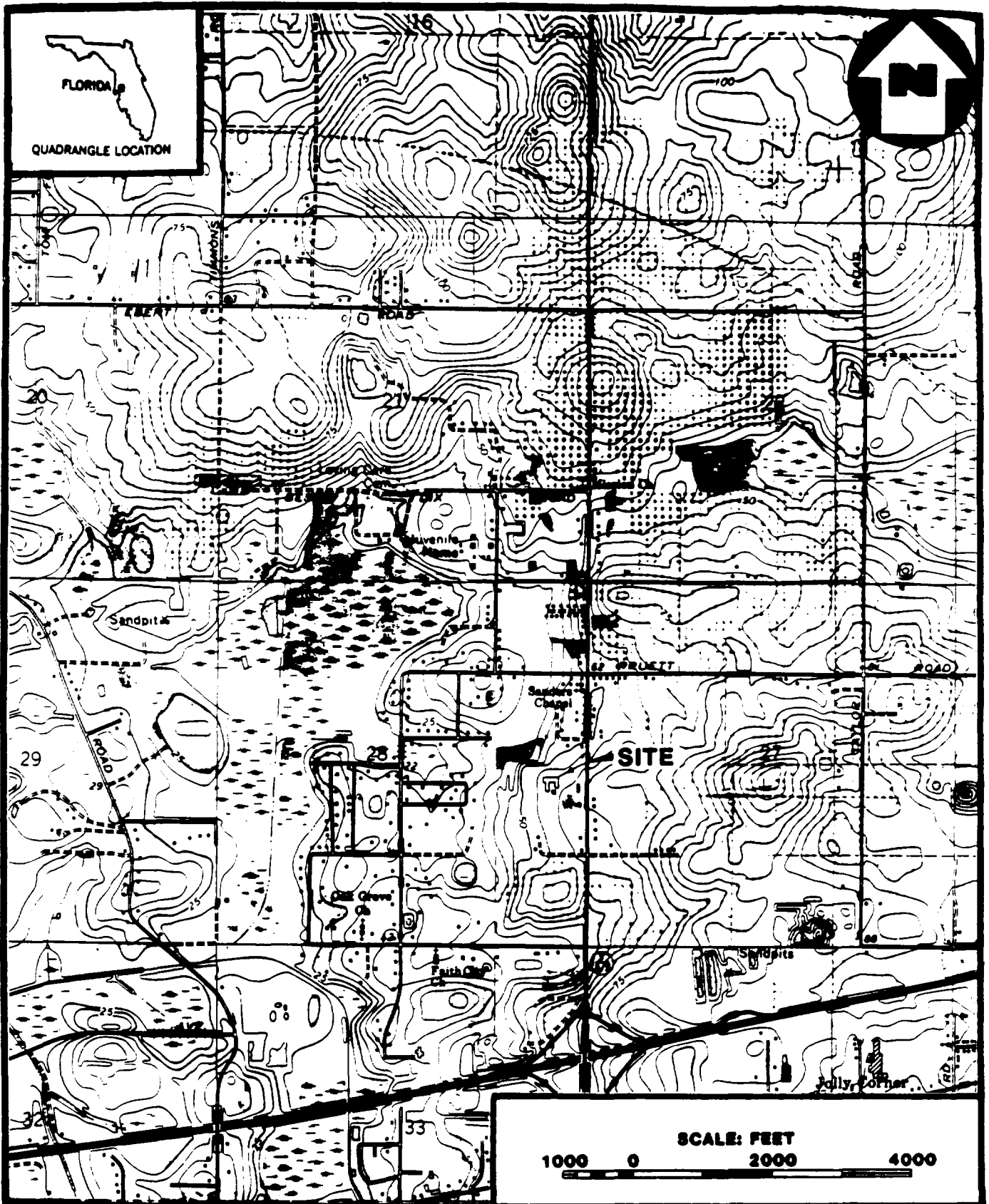
Cast-Crete has been a concrete product manufacturer since 1955. The company uses oil-lubricated forms to produce reinforced beams, lintels, seals and drainage structures (Refs. 1, 3). Cement trucks used to mix concrete for the operation were cleaned eight to ten times per day. Truck exteriors were washed with water and engines steam cleaned with degreasing solutions. Effluent from these operations together with oil-contaminated runoff flowed to an unlined holding pond located in the northwest corner of the property. Excess pondwater is continuously discharged into a drainage ditch via a concrete flume. The drainage ditch discharges into a swamp. Drainage from the swamp then flows into Six Mile Creek. The quantity of detergents, lubricating oil and organic degreasing solvents deposited in the Cast-Crete holding impoundment is unknown (Ref. 2, 3).

The Hillsborough County Environmental Protection Commission (HCEPC) initially reported violations of Class III Surface Water Standards in site discharge and in receiving waters downstream of the discharge point (Ref. 3). Still no effort was made by Cast-Crete to secure a permit. On August 8, 1985, FDER entered a Final Order requiring Cast-Crete to apply for an Industrial Wastewater Permit or cease discharging wastewater from the facility. Although Cast-Crete appealed the Order, they lost the appeal on April 15, 1986. The company subsequently halted rock-washing operations and ceased discharging wastewater from the facility (Refs. 4, 5 and 6).

### **2.2 SITE DESCRIPTION**

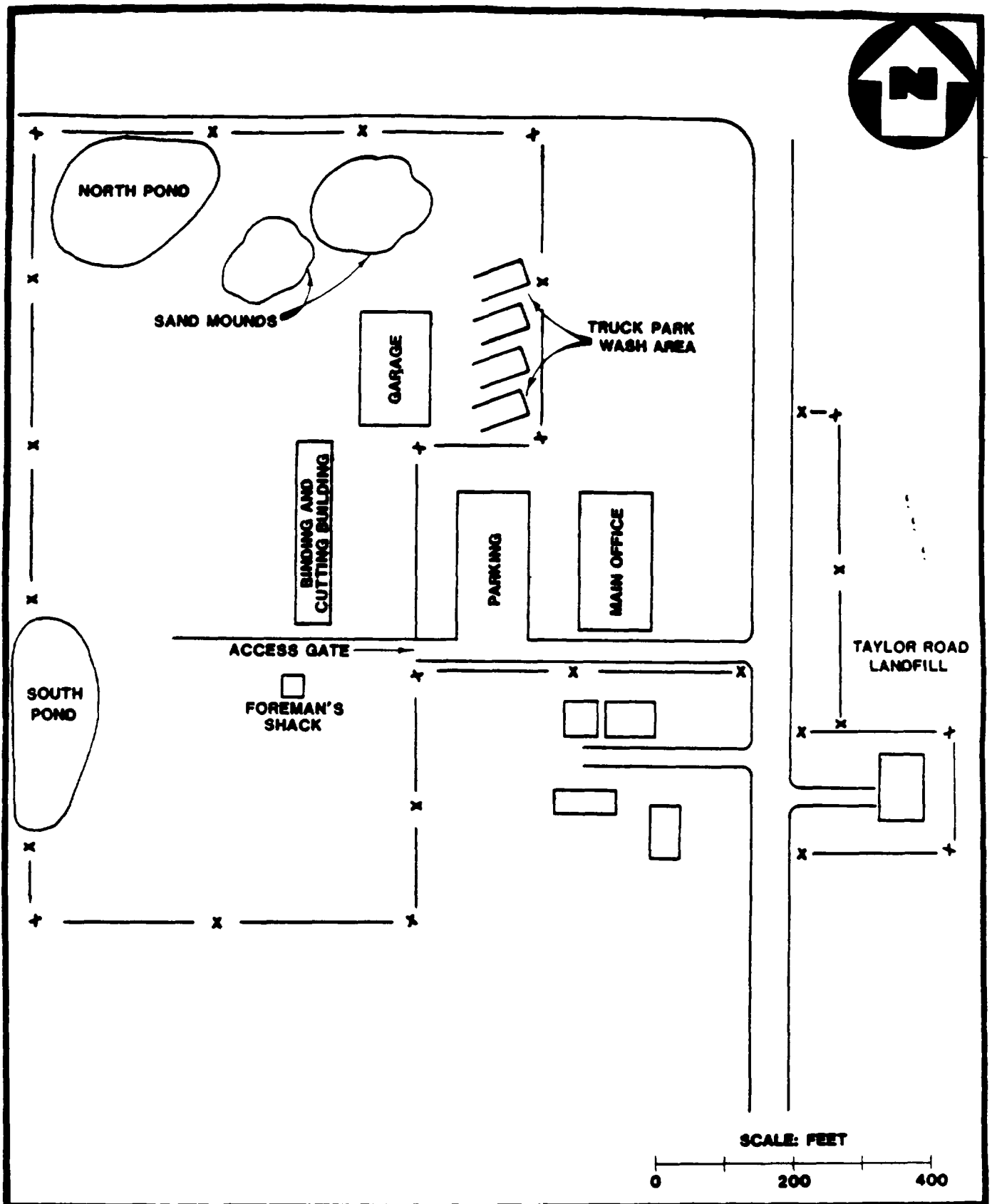
#### **2.2.1 Site Features**

The Cast-Crete facility occupies approximately 4 acres of land on State Hwy. 579 (Figure 1). There is a main office/administration building adjacent to the main highway, a foreman's shack inside the gate leading to the operations area, a long covered binding and cutting shed, and a machinery maintenance/garage building located adjacent to the truck park/wash area. The majority of the site area is taken up by massive concrete structures in various stages of construction. The perimeter areas are used for storage of off-spec rubble and debris awaiting disposal. There are two ponds onsite, at the northwest and southwest corners of the property, respectively.



BASE MAP IS A PORTION OF THE U.S.G.S. 7.5 MINUTE QUADRANGLE THONOTOSASSA, FLORIDA, 1974.  
**SITE LOCATION MAP**  
**CAST-CRETE CORPORATION**  
**TAMPA, FLORIDA**

FIGURE 1



**SITE LAYOUT MAP  
CAST - CRETE CORPORATION  
TAMPA, FLORIDA**

**FIGURE 2**



These ponds receive waste wash water, concrete silt, and surface runoff from the facility. The southwest pond does not have an obvious discharge point, and the level is presumed to be controlled by percolation and evaporation. The northwest pond discharges by means of a flume which leads to a 10 foot deep ditch leading west from the site. This ditch terminates in a low-lying swampy area which forms the backyards of several nearby residences (Ref. 7).

Due to the nature of the processes and equipment involved in plant activities, the operations area of the site is generally underlain by slabs of concrete. To provide a stable surface for the large trucks and cranes which traverse the site. The operations area of the facility is completely enclosed by a chain link fence, and access is controlled 24 hours per day (Ref. 7).

### **2.2.2 Waste Characteristics**

Plant operations at Cast-Crete consist of mixing concrete and cement for use in pre-fabricated buildings, reinforced beams, and pipe supports. Waste water is generated by the following operations:

1. Storm water run-off that has come in contact with concrete forms and dust scattered around the area
2. Overflow from concrete truck and wash out pits
3. Steam cleaning of the engines of heavy equipment. This waste stream produces organic solvents and detergents.

All of the above mentioned wastewater streams are directed into a settling pond located at the northwest corner of the property from which it discharges off-site into a county ditch. If the flow through the ditch has sufficient volume, this water will then carry to six-mile creek, approximately 3.4 stream miles west of the facility.

Quantities of waste engine cleaners are unknown, as the engines are cleaned several times per day, but only on those vehicles which are in use that particular day.

The two ponds on the facility are unlined. No specific containment procedures for facility wastewater are used (Refs. 3, 4).

## **3.0 REGIONAL POPULATIONS AND ENVIRONMENTS**

### **3.1 POPULATION AND LAND USE**

#### **3.1.1 Demography**

The population distribution around cast-crete is primarily rural, with some small suburban type developments. The major residential areas are to the west (Tampa, Temple Terrace) and to the south (Mango, Brandon). There are approximately 1,091 people within 1-mile of the facility (287 homes x 3.8 persons per home). The closest schools to Cast-Crete are the Clarkwild school 2.4 miles north, and the Mango School, 2.4 miles south.

#### **3.1.2 Land Use**

The most predominant use of land within a 4-mile radius of the facility is agriculture. Citrus groves occupy the majority of the acreage to the north, northeast, and east of the facility. The remaining land is used for single-family residential and recreational (Lake Thonotossassa). Adjacent to the Cast-Crete facility on the east side of Hwy. 579 is the Hillsobrough Heights Landfill. This landfill is approximately 400 acres and is operated by Hillsborough County. There are no known sensitive environments within 4-miles of the Cast-Crete facility (Ref. 8).

### **3.2 SURFACE WATER**

#### **3.2.1 Climatology**

The Tampa area is characterized by a mild subtropical climate. Mean annual precipitation is 50.24 inches (Ref. 9, p. 2). The rainy season extends from June to September and accounts for more than 60 percent of the annual rainfall, while the dry season, November through May, provides 24 to 34 percent of annual precipitation (Ref. 9, p. 2). Evapotranspiration accounts for a loss of 30 inches of precipitation annually to the atmosphere (Ref. 10, p. 12).

The Tampa area's mean monthly temperatures range from a low of 61.5°F in January to a high of 82.0°F in August, with a mean annual temperature of 72.2°F.

### **3.2.2 Overland Drainage**

There are no surface drainage pathways leading from the Cast-Crete facility (Ref. 7).

## **3.3 GROUNDWATER**

### **3.3.1 Regional Aquifer Description**

Groundwater occurrence in the area can be characterized as unconfined (water table aquifer), semi-confined, and confined depending upon local geologic conditions (Ref. 10, p. 70-71). The principle aquifer is the Floridan aquifer, which is confined and is the primary source of groundwater supplies in the area (Ref. 10, p. 72). The Floridan aquifer is made up of limestone. Surficial deposits exist within the site area. They may be classified as the Hawthorn Formation or as undifferentiated deposits. Groundwater supplies obtained from surficial deposits can be substantial or they may be nonexistent depending on the geologic setting (Ref. 10, p. 70-77).

### **3.3.2 Hydrogeology**

Hillsborough County, Florida is located in the Gulf Coastal Plain Physiographic Province. The plain is perforated by sinkholes, circular depression typical of karst erosion, that bottoms as much as 15 - 20 feet bls. These small circular depressions locally called cypress heads or domes, are one of the most characteristic vegetative and geomorphic features of the Gulf Coast lowlands (Ref. 11, p. 2). Sedimentary rocks ranging in thickness from 8000 feet in the northeast to 13,000 feet in the southwest, contain the water-bearing aquifers that are vital water resources to the area.

The Floridan aquifer system consists of a thick sequence of carbonate rocks of Tertiary age (Table 2-1). Only the upper portion of the Floridan aquifer will be discussed as it is the primary source of potable groundwater in the area. Throughout Hillsborough County this portion of the aquifer ranges in thickness from 1000 to 1200 feet. The stratigraphic units comprising the upper Floridan in order of increasing depth are Tampa Limestone, Suwannee Limestone, Ocala Limestone, Avon Park Limestone, and Lake City Limestone (Ref. 10, p. 16).

Lithologic descriptions of core samples collected from boreholes of wells within Morris Bridge wellfield located 4.5 miles north of the site provide a detailed description of the geology of the Floridan Aquifer.

The Hawthorn Formation is absent in this area and thus the Tampa Limestone is overlain by unconsolidated deposits of sand, clay, and mixed sand and clay of Pleistocene- and Holocene-age. The sandy materials often supply water for domestic use, but they have a more important role of receiving and storing rainfall and transmitting water to the underlying limestone aquifer (Ref. 12, p. 7).

The Tampa Limestone overlies the Suwannee Limestone and contains numerous sinks that maintain large volumes of water and highly transmissive zones which underlie confining beds that occur in the Tampa Limestone. The confining beds are more developed to the south and southwest of the wellfield area (Ref. 12, p. 7). The Suwannee Limestone of Oligocene age is relatively permeable. The Ocala Limestone overlies the Avon Park and is also of Eocene Age. The primary water-bearing zones in this formation are near the zone-of-contact with the overlying Suwannee Limestone. The Avon Park Limestone contains a dolomite section with highly fractured zones. Field test indicate that these zones provided most of the available supply of groundwater to wells in the field. The Lake City Limestone of Eocene age is the oldest formation encountered and is characterized by the presence of anhydrite- or gypsum-filled voids which account for the highly mineralized (high sulfate) water and relatively low permeability. The depth to the contact with the overlying Avon Park Limestone is uncertain (Ref. 12, p. 7).

Boring logs from the Morris Bridge wellfield area show variations in thickness and character of the unconsolidated deposits. Confining bed thickness ranges from about 1 foot in the center of the wellfield to about 20 feet along the eastern and western margins. The clay and silt layer is very thin in some areas but generally retards vertical movement of water to the underlying limestone (Ref. 12, P. 7). Borehole data from a well completed 3 miles west of the site by SWFWMD indicates that the surficial deposits are approximately 15 feet thick and consist of tan, quartz, sand and tan to yellow clayey sand (Ref. 12). A borehole completed during a FIT 4 SSI east of Fowler Avenue showed the lithology to be tan, clayey, sand to 18 feet. Water was not encountered as the soils were competent and very dry. These two boreholes also indicate that the Hawthorn Formation appears to be absent in this area.

The local groundwater flow direction based on the potentiometric surface of the Floridan aquifer is south-southeast. Regionally the flow is west toward the coast. Depth to groundwater at the site is estimated to be at 55 feet (Ref. 12). Transmissivity of the Floridan aquifer ranges from 37,000 to 600,000 ft<sup>2</sup>/day. The storage coefficient is estimated to be 0.001. The vertical conductivity of surficial deposits was calculated to range from  $5.2 \times 10^{-5}$  to 2.6 feet per day (Ref. 12, p. 1).

Groundwater supplies obtained from the Floridan aquifer are used for potable water, irrigation, and commercial and industrial purposes (Ref. 10, p. 17-18). In certain areas a confining layer does exist between the surficial aquifer and the Floridan aquifer. However, the thickness, extent and effectiveness of this confining layer is extremely variable.

### **3.3.3 Aquifer Use**

The unconfined Floridan aquifer is the major source of potable ground-water in Hillsborough County. The Morris Bridge wellfield is the closest municipal wellfield, but it lies 4.5 miles north-west of Cast-Crete and is outside the study area. The majority of the residents in a four-mile radius of Cast-Crete are served by the Hillsborough County water system which obtains water from the Morris Bridge wellfield. There are also approximately 300 private wells in the study area (Ref. 13, 14).

The closest private well to the facility is the Smith-Thompson well, located 800 ft. south of the site. This well serves two trailer homes and was sampled during this investigation. Reportedly, this well is 4 inch iron casing to 200 feet total depth (Ref. 1).

Additionally, in 1986, FDER sampled several private wells in the vicinity of Cast-Crete, and US EPA sampled approximately 300 wells the same year. Both of these sampling events were part of a forward planning study concerning the two major landfills in the area. (Hillsborough Heights and Taylor Road). Reportedly, no contamination was indicated in any wells sampled (Ref. 13).

## **3.4 SUMMARY OF POTENTIALLY AFFECTED POPULATIONS AND ENVIRONMENTS**

The pathway of concern for the Cast-Crete facility is possible groundwater contamination. The pathways which have been deemed non-viable for this facility are surface water, direct contact, and fire and explosion. The surface water pathway was discounted because the ditch leading from Cast-Crete to the swamp is intermittent and only carries water when there is excessive flow from the facility. The fire and explosion hazard is discounted because of the non-explosive nature of the contaminants of concern. The direct contact hazard is discounted because the site is fenced and access is controlled 24 hours a day.

The potentially affected population around Cast-Crete are those persons who derive their potable water supplies from the 300 private wells within a four-mile radius of the site. All of these wells are finished in the unconfined Floridan aquifer.

## **4.0 FIELD INVESTIGATION**

### **4.1 SAMPLE COLLECTION AND ANALYSIS**

#### **4.1.1 Sample Collection**

##### **4.1.1.1 Sample Collection Methodology**

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation were in accordance with the standard operating procedures as specified in Sections 3 and 4 of the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

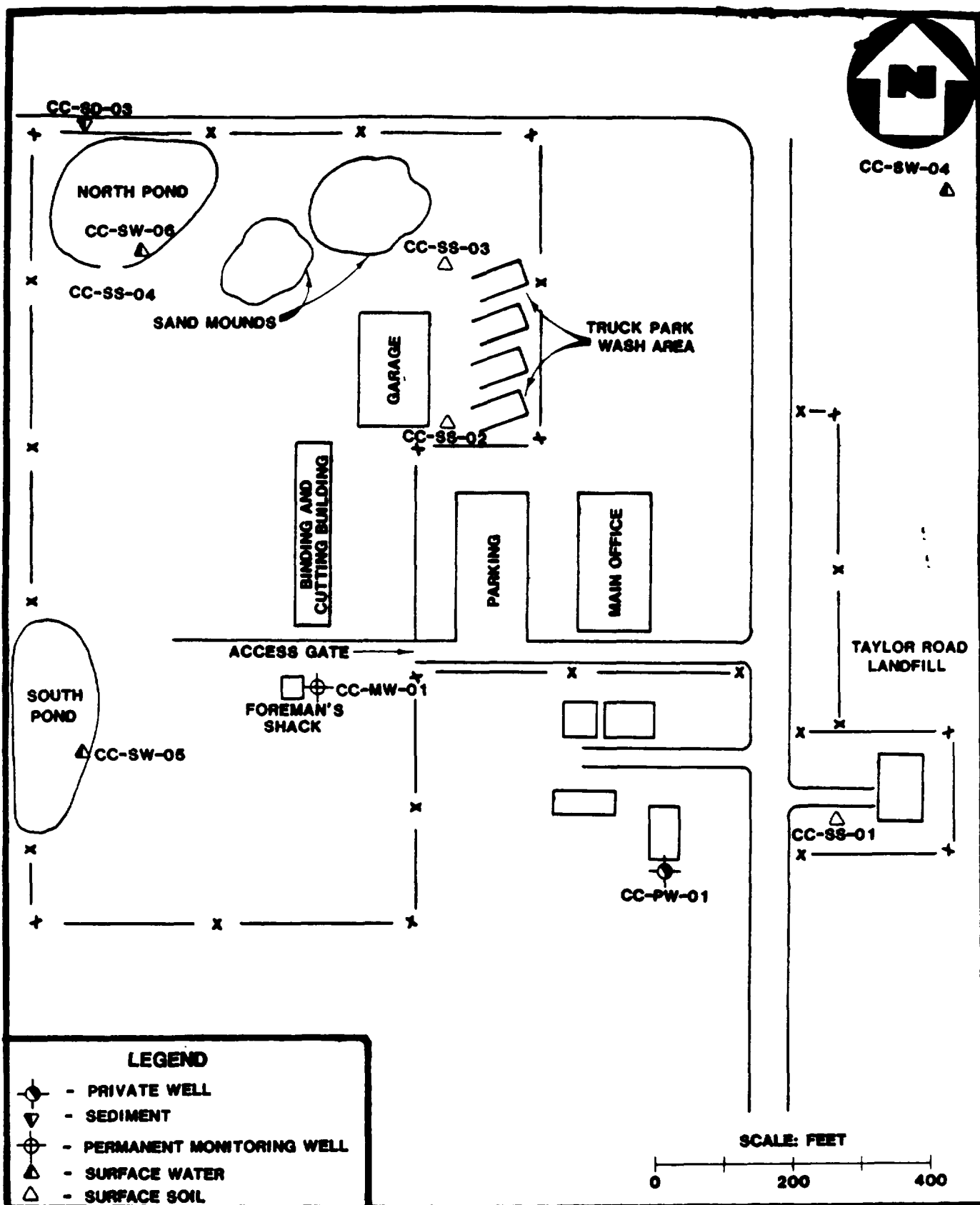
##### **4.1.1.2 Duplicate Samples**

Duplicate samples were offered to and declined by all property owners where samples were collected. Receipts to that effect were signed by property owners and are located in file number TDD-F4-8802-14.

##### **4.1.1.3 Description of Samples and Sample Locations**

During the field investigation portion of this study, ten environmental samples were collected. These include three surface water samples, one monitoring well, one private well, four surface soil and one sediment sample.

FIT intended to collect groundwater samples from temporary wells installed by a gasoline powered hand auger. However, this drilling method was not capable of reaching a depth at which the water table could be reached. The temporary well samples were replaced by additional surface water samples from the onsite ponds.



**SAMPLE LOCATION MAP  
CAST - CRETE CORPORATION  
TAMPA, FLORIDA**

**FIGURE 3**

The four surface soil samples included CC-SS-01, background sample collected from the front yard of the residence at 6220 N. Hwy. 579. Sample CC-SS-02 was collected at the southern portion of the truck wash area and was intended for onsite detection. Sample CC-SS-03 was collected from the center of the truck wash area, in oil-stained soil, again for on-site detection. Sample CC-SS-04 was obtained from the drainage pathway entrance to the north pond to assess contaminant transport. Sample CC-SD-03 was sediment sample collected from the ditch which receives drainage from the north pond. Sampling point was at the exit of Cast-Crete property. This sample was collected to assess contaminant migration. All soil/sediment samples were collected at a depth of 0-2 feet bls (below land surface).

Sample codes and descriptions are found on Table 4-1. Sample locations are found on Figure 3.

#### **4.1.1.4 Field Measurements**

Field tracking logs for all samples included; time, date, and the depth at which the samples were collected. Additionally, physical measurements made on water samples included pH, temperature, and conductivity. Field measurements made on environmental samples are summarized in Table 4-1.

## **4.2 SAMPLE ANALYSIS**

### **4.2.1 Analytical Support and Methodology**

All samples collected were analyzed under the Contract Laboratory Program (CLP) and analyzed for all parameters listed in the Target Compound List (TCL). Organic analysis of soil and water samples was performed by Triangle Lab of North Carolina. Inorganic analysis of soil and water was performed by DataChem of Salt Lake.

All laboratory analyses and laboratory quality assurance procedures used during this investigation were in accordance with standard procedures and protocols as specified in the Analytical Support Branch Operations and Quality Assurance Manual, United States Environmental Protection Agency, Region IV, Environmental Services Division, revised June 1, 1985; or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.



TABLE 4-1

## DESCRIPTION OF SAMPLE CODES AND LOCATIONS

Sample Code	Medium	Location/Rationale
CC-PW-01	Groundwater	The Thompson well, 150 ft. south of the facility. This well is the closest private well.
CC-MW-01	Groundwater	250' deep monitoring well located inside the foreman's shed on Cast-Crete property. Onsite detection.
CC-SW-04	Surface Water	Collected from Higbon Park Pond, on Taylor Road. Background/control.
CC-SW-05	Surface Water	Collected from the south settling pond. Onsite detection.
CC-SW-06	Surface Water	Collected from the north settling pond. Onsite detection.
CC-SS-01	Surface Soil	Collected at 6220 N. Hwy. 579. Background/control.
CC-SS-02	Surface Soil	Collected at the southern portion of the truck wash area. Onsite detection.
CC-SS-03	Surface Soil	Collected at the northern portion of the truck wash area. Onsite detection.
CC-SS-04	Surface Soil	Collected from the bank of the north holding pond. Onsite Detection.
CC-SD-03	Sediment	Collection from the ditch draining the north pond. Sampling point was at exit of Cast-Crete property. Downgradient detection.

CC - Cast-Crete Corporation  
PW - Private Well  
MW - Monitoring Well

SS - Surface Soil  
SD - Sediment  
SW - Surface Water

**TABLE 4-2**  
**RECORD OF FIELD MEASUREMENTS**

Sample Code	Date	Time	Conductivity (umhos)	pH	Temp (°c)
CC-PW-01	9/12/88	1155	729	4.8	27°
CC-MW-01	9/12/88	1510	277	7.8	25°
CC-SW-04	9/12/88	1450	485	8.4	26°
CC-SW-05	9/12/88	1350	1400	9.9	33°
CC-SW-06	9/12/88	1410	2070	11.8	34°

#### **4.2.2 Analytical Data Quality**

All analytical data were subjected to a quality assurance review as described in the EPA Environmental Services Division laboratory data evaluation guidelines. As shown in the tables, some of the organic and inorganic parameters were assigned estimated concentrations. This means that the qualitative analysis was acceptable, but the reported concentrations should not be considered accurate. A few other compounds were noted as being detected based on the presumptive evidence of their presence. This means that the compound was tentatively identified, and its detection cannot be used as a positive identification as to its presence. Some of the data were found to be invalid according to QA/QC procedures. Invalid data were not used in this report, since resampling and analysis would be necessary to confirm the results of all invalid data. The complete analytical data sheets are provided in Appendix A.

#### **4.2.3 Presentation of Analytical Results**

The organic analysis of water samples collected during the field investigation show no appreciable contamination. The results are summarized in Table 4-3.

The inorganic analysis of water samples showed elevated concentrations of metals, although these metals are naturally occurring. Aluminum, calcium, copper, iron, magnesium, potassium, sodium and zinc were found at levels exceeding background. These elements are to be expected in abundance at a concrete manufacturing facility. The analytical results are summarized in Table 4-4.

The organic analysis of soil and sediment samples was inconclusive. All of the reported compounds were assigned "J" or "N" or "JN" values. This means the results are either estimated, presumptive, or both. The analytical results are summarized in Table 4-5.

The inorganic analyses of soil and sediment samples showed results similar to the water sample analysis. Aluminum, calcium, copper, iron, magnesium, potassium and zinc were all found in abundance. The differences were that barium, cobalt, chromium, lead, manganese, and vanadium had positive detection values above background levels. Arsenic was also reported in samples SS-03 and SS-04, but the quantities listed are estimated. The inorganic analysis is summarized in Table 4-6.

TABLE 4-3

**SUMMARY OF ORGANIC ANALYTICAL RESULTS  
SURFACE WATER AND WELL SAMPLES  
CAST CRETE CORP.  
TAMPA, FLORIDA**

PARAMETERS (ug/l)	Backgroun d				
	CC-SW-04	CC-SW-05	CC-SW-06	CC-MW-01	CC-PW-01
<b>PURGEABLE COMPOUNDS</b>					
CHLOROFORM	-	-	-	-	1J
METHYLPROPYLBENZENE	-	-	-	-	-
PROPENE	-	-	-	-	-
UNIDENTIFIED COMPOUNDS/NO.	-	-	-	-	-
<b>EXTRACTABLE COMPOUNDS</b>					
BIS(2-ETHYLHEXYL) PHTHALATE	-	-	-	-	-
BIS(DIMETHYL)PHENOL	-	-	-	-	-
THIOSBIS(DIMETHYLETHYL)METHYL PHENOL	-	-	-	-	-
DIETHYLMETHYLBENZENE	-	-	-	-	-
ETHYLDIMETHYLBENZENE	-	-	-	-	-
CHLOROMETHYL BENZENE	-	-	-	-	-
TETRAMETHYLBENZENE	-	-	-	-	-
HEXANEDIOIC ACID DIOCTYLESTER	-	10JN	10JN	-	-
PETROLEUM PRODUCT	-	-	-	-	-
UNIDENTIFIED COMPOUNDS/NO.	-	-	-	-	-
<b>PESTICIDE\PCB COMPOUNDS</b>					
HEPTACHLOR EPOXIDE	-	-	-	-	-

- Material analyzed for but not detected above minimum quantitation limit  
J Estimated value  
N Presumptive evidence of presence of material

TABLE 4-4

**SUMMARY OF INORGANIC ANALYTICAL RESULTS  
SURFACE WATER AND WELL SAMPLES  
CAST CRETE CORP.  
TAMPA, FLORIDA**

PARAMETERS (ug/l)	Background				
	CC-SW-04	CC-SW-05	CC-SW-06	CC-MW-01	CC-PW-01
ALUMINUM	-	-	2700J	-	-
ANTIMONY	-	-	-	-	-
ARSENIC	-	-	-	-	-
BARIUM	-	-	-	-	-
BERYLLIUM	-	-	-	-	-
CADMIUM	-	-	-	-	-
CALCIUM	5200	21,000	180,000	60,000	4800
CHROMIUM	-	-	-	-	-
COBALT	-	-	-	-	-
COPPER	-	10	18	-	19
IRON	-	420	-	-	-
LEAD	-	-	-	-	-
MAGNESIUM	730	220	230	3700	1300
MANGANESE	-	-	-	-	-
MERCURY	-	-	-	-	-
NICKEL	-	-	-	-	-
POTASSIUM	1200	34,000	86,000	610	-
SELENIUM	-	-	-	-	-
SILVER	-	-	-	-	-
SODIUM	-	-	1,100,000	-	-
THALLIUM	-	-	-	-	-
TIN	-	-	-	-	-
VANADIUM	-	-	-	-	-
ZINC	13	12	-	-	39
CYANIDE	-	-	-	-	-

- Material analyzed for but not detected above minimum quantitation limit  
J Estimated value

TABLE 4-5

**SUMMARY OF ORGANIC ANALYTICAL RESULTS  
SOIL AND SEDIMENT SAMPLES  
CAST CRETE CORP.  
TAMPA, FLORIDA**

PARAMETERS (ug/kg)	Background				
	d	CC-SS-02	CC-SS-03	CC-SS-04	CC-SD-03
	CC-SS-01				
<b>PURGEABLE COMPOUNDS</b>					
CHLOROFORM	-	-	-	-	-
METHYLPROPYLBENZENE	-	-	10JN	-	-
PROPENE	-	-	-	40JN	-
UNIDENTIFIED COMPOUNDS/NO.	-	-	-	20J/1	-
<b>EXTRACTABLE COMPOUNDS</b>					
BIS(2-ETHYLHEXYL) PHTHALATE	-	3700J	-	-	-
BIS(DIMETHYL)PHENOL	-	400JN	-	-	-
THIOSBIS(DIMETHYLETHYL)METHYL PHENOL	-	-	-	-	3000JN
DIETHYLMETHYLBENZENE	-	-	1000JN	-	-
ETHYLDIMETHYLBENZENE	-	-	1000JN	-	-
CHLOROMETHYL BENZENE	-	-	2000JN	-	-
TETRAMETHYLBENZENE	-	-	1000JN	-	-
HEXANEDIOIC ACID DIOCTYLESTER	-	-	-	-	-
PETROLEUM PRODUCT	-	N	N	-	-
UNIDENTIFIED COMPOUNDS/NO.	900J/2	20,000J/6	200,000J/ 14	30,000J/1	3000J/6
<b>PESTICIDE\PCB COMPOUNDS</b>					
HEPTACHLOR EPOXIDE	-				

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

TABLE 4-6

**SUMMARY OF INORGANIC ANALYTICAL RESULTS  
SOIL AND SEDIMENT SAMPLES  
CAST CRETE CORP.  
TAMPA, FLORIDA**

PARAMETERS (mg/kg)	Background				
	d CC-SS-01	CC-SS-02	CC-SS-03	CC-SS-04	CC-SD-03
ALUMINUM	4400	4200	7900	8700	16,000
ANTIMONY	-	-	-	-	-
ARSENIC	-	-	10J	14J	-
BARIUM	-	-	63	-	65
BERYLLIUM	-	-	-	-	-
CADMIUM	-	-	-	-	-
CALCIUM	1800	200,000	210,000	150,000	16,000
CHROMIUM	-	67	32	19	22
COBALT	-	8.1	7	6.6	-
COPPER	7.3	56	17	16	-
IRON	1700	54,000	9600	9700	3500
LEAD	-	-	18	-	-
MAGNESIUM	210	1700	2200	2500	660
MANGANESE	44	380	80	74	12
MERCURY	-	-	-	-	-
NICKEL	-	-	-	-	-
POTASSIUM	140	500	480	680	420
SELENIUM	-	-	-	-	-
SILVER	-	-	-	-	-
SODIUM	-	-	-	-	-
THALLIUM	-	-	-	-	-
TIN	-	-	-	-	-
VANADIUM	-	25	42	41	-
ZINC	33	240	81	47	5.3
CYANIDE	-	-	-	-	-

- Material analyzed for but not detected above minimum quantitation limit  
J Estimated value

#### **4.3 SUMMARY OF FIELD INVESTIGATION**

None of the samples collected showed positive analytical results for the contaminants of concern (organic degreasers, solvents, detergents). Notwithstanding, it is thought that attributing any organic contaminants to this facility would be difficult. The Hillsborough Heights Landfill is 200 feet upgradient of Cast-Crete Corp., making segregation of any contaminant plumes, streams, or traces difficult.



## **5.0 SUMMARY**

The investigation conducted by FIT 4 at the Cast-Crete Corporation Facility on north HWY 579 in Hillsborough County, Florida, showed no detectable release of contaminants to the environment.

The targets that are potentially affected are the 300 private wells in use within a four mile radius of the site, and onsite workers could potentially come into contact with degreasers through direct contact.

Based on the findings of this investigation, FIT 4 recommends that no further remedial action be planned for this site.

## REFERENCES

1. NUS Corporation Field Logbook No. F4-695 for Cast-Crete Corporation, TDD No. F4-8802-14. Documentation of Field Reconnaissance, Feb. 29, 1988.
2. Potential Hazardous Waste Site Preliminary Assessment (EPA Form 2070-12) and attachments for Cast-Crete Corporation. Filed by Craig Feeny, Florida Department of environmental regulation, September 30, 1986.
3. Florida District Court of Appeal, 1985. Initial Brief of Appellant: Cast-Crete Corporation of Florida, Inc. vs. Florida Department of Environmental Regulation. November 5, 1985.
4. USEPA file material for Cast-Crete Corporation, Florida Division of Administrative Hearings, Record of Appeal, February 7, 1985.
5. Craig Feeny, Florida Department of Environmental Regulation interoffice memo to C. Hill, September 25, 1986. Subject: Cast Crete Corporation.
6. Potential Hazardous Waste Site Inspection Form (EPA Form 2070-13). Filed by Kent Hankinson, NUS Corporation April 26, 1988.
7. NUS Corporation Field Logbook No. F4-1037 for Cast-Crete Corporation, TDD No. F4-8802-14. Documentation of Site Screening Investigation, September 12-13, 1988.
8. U.S. Fish and Wildlife Service, Endangered and Threatened Species of the Southeastern United States, (Atlanta, Georgia: 1988).
9. U.S. Dept. of Agriculture, Soil Conservation Service, "Soil Survey of Hillsborough County, Florida", (September 1958, pp. 1-2).
10. C.G. Menke, E.W. Meredith and W.S. Wetterhall, "Water Resources of Hillsborough County, Florida," Report of Investigation No. 25, (United States Geological Survey, 1961), pp. 12, 16, 70-77.

11. William C. Sinclair, "Hydrogeological Characteristics of the Surficial Aquifer in Northwest Hillsborough County, Florida," Information Circular No. 86, (United States Geological Survey, 1974, pp. 2).
12. Paul D. Ryder, Dale M. Johnson and James M. Gerhart, "Model Evaluation of the Hydrogeology in the Morris Bridge Wellfield and Vicinity in West-Central Florida," Water-Resources Investigations 80-29, (U.S. Geological Survey, 1980), 1, 3, 5-9, 14, 15.
13. SCS Engineers, Investigation of Groundwater Contamination in the Vicinity of the Hillsborough Heights Landfill, prepared for the Hillsborough County Department of Solid Waste, July 3, 1986.
14. Champion Map Corporation, Tampa Water Department, Water Distribution System Atlas Index Map, October 1985.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30195 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SS-01 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L131  
\*\*\*  
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

11U CHLOROMETHANE  
11U BROMOMETHANE  
11U VINYL CHLORIDE  
11U CHLOROETHANE  
40U METHYLENE CHLORIDE  
30U ACETONE  
6U CARBON DISULFIDE  
6U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
6U 1,1-DICHLOROETHANE  
6U 1,2-DICHLOROETHENE (TOTAL)  
6U CHLOROFORM  
6U 1,2-DICHLOROETHANE  
30UJ METHYL ETHYL KETONE  
6U 1,1,1-TRICHLOROETHANE  
6U CARBON TETRACHLORIDE  
11U VINYL ACETATE  
6U BROMODICHLOROMETHANE  
6U 1,2-DICHLOROPROPANE

NA

6U CIS-1,3-DICHLOROPROPENE  
6U TRICHLOROETHENE(TRICHLOROETHYLENE)  
6U DIBROMOCHLOROMETHANE  
6U 1,1,2-TRICHLOROETHANE  
6U BENZENE  
6U TRANS-1,3-DICHLOROPROPENE  
2-CHLOROETHYL VINYL ETHER  
6U BROMOFORM  
11U METHYL ISOBUTYL KETONE  
11U METHYL BUTYL KETONE  
6U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
6U 1,1,2,2-TETRACHLOROETHANE  
6U TOLUENE  
6U CHLOROBENZENE  
6U ETHYL BENZENE  
6U STYRENE  
6U TOTAL XYLENES  
11 PERCENT MOISTURE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88 621 SAMPLE NO. 30195 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SS-01 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L131  
\*\*\*

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
370UJ	PHENOL	1900UJ	3-NITROANILINE
370UJ	BIS(2-CHLOROETHYL) ETHER	370UJ	ACENAPHTHENE
370UJ	2-CHLOROPHENOL	1900UJ	2,4-DINITROPHENOL
370UJ	1,3-DICHLOROBENZENE	1900UJ	4-NITROPHENOL
370UJ	1,4-DICHLOROBENZENE	370UJ	DIBENZOFURAN
370UJ	BENZYL ALCOHOL	370UJ	2,4-DINITROTOLUENE
370UJ	1,2-DICHLOROBENZENE	370UJ	DIETHYL PHTHALATE
370UJ	2-METHYLPHENOL	370UJ	4-CHLOROPHENYL PHENYL ETHER
370UJ	BIS(2-CHLOROISOPROPYL) ETHER	370UJ	FLUORENE
370UJ	(3-AND/OR 4-)METHYLPHENOL	1900UJ	4-NITROANILINE
370UJ	N-NITROSODI-N-PROPYLAMINE	1900UJ	2-METHYL-4,6-DINITROPHENOL
370UJ	HEXACHLOROETHANE	370UJ	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
370UJ	NITROBENZENE	370UJ	4-BROMOPHENYL PHENYL ETHER
370UJ	ISOPHORONE	370UJ	HEXACHLOROBENZENE (HCB)
370UJ	2-NITROPHENOL	1900UJ	PENTACHLOROPHENOL
370UJ	2,4-DIMETHYLPHENOL	370UJ	PHENANTHRENE
1900UJ	BENZOIC ACID	370UJ	ANTHRACENE
370UJ	BIS(2-CHLOROETHOXY) METHANE	370UJ	DI-N-BUTYLPHTHALATE
370UJ	2,4-DICHLOROPHENOL	370UJ	FLUORANTHENE
370UJ	1,2,4-TRICHLOROBENZENE	370UJ	PYRENE
370UJ	NAPHTHALENE	370UJ	BENZYL BUTYL PHTHALATE
370UJ	4-CHLOROANILINE	750UJ	3,3'-DICHLOROBENZIDINE
370UJ	HEXACHLOROBUTADIENE	370UJ	BENZO(A)ANTHRACENE
370UJ	4-CHLORO-3-METHYLPHENOL	370UJ	CHRYSENE
370UJ	2-METHYLNAPHTHALENE	370UJ	BIS(2-ETHYLHEXYL) PHTHALATE
370UJ	HEXACHLOROCYCLOPENTADIENE (HCCP)	370UJ	DI-N-OCTYLPHTHALATE
370UJ	2,4,6-TRICHLOROPHENOL	370UJ	BENZO(B AND/OR K)FLUORANTHENE
1900UJ	2,4,5-TRICHLOROPHENOL	370UJ	BENZO-A-PYRENE
370UJ	2-CHLORONAPHTHALENE	370UJ	INDENO (1,2,3-CD) PYRENE
1900UJ	2-NITROANILINE	370UJ	DIBENZO(A,H)ANTHRACENE
370UJ	DIMETHYL PHTHALATE	370UJ	BENZO(GHI)PERYLENE
370UJ	ACENAPHTHYLENE	11	PERCENT MOISTURE
370UJ	2,6-DINITROTOLUENE		

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30195 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SS-01 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L131 MD NO:  
\*\*  
\*\*\*

RESULTS UNITS COMPOUND  
900J UG/KG 2 UNIDENTIFIED COMPOUNDS

RESULTS UNITS COMPOUND

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*  
\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30195 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CASI-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SS-01 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\* CASE NUMBER: 10400 SAS NUMBER: D. NUMBER: L131  
\*\*

UG/KG ANALYTICAL RESULTS

90UJ ALPHA-BHC  
90UJ BETA-BHC  
90UJ DELTA-BHC  
90UJ GAMMA-BHC (LINDANE)  
90UJ HEPTACHLOR  
90UJ ALDRIN  
90UJ HEPTACHLOR EPOXIDE  
90UJ ENDOSULFAN I (ALPHA)  
180UJ DIELDRIN  
180UJ 4,4'-DDE (P,P'-DDE)  
180UJ ENDRIN  
180UJ ENDOSULFAN II (BETA)  
180UJ 4,4'-DDD (P,P'-DDD)  
180UJ ENDOSULFAN SULFATE  
180UJ 4,4'-DDT (P,P'-DDT)

UG/KG ANALYTICAL RESULTS

89UJ METHOXYCHLOR  
180UJ ENDRIN KETONE  
-- CHLORDANE (TECH. MIXTURE) /1  
89UJ GAMMA-CHLORDANE /2  
89UJ ALPHA-CHLORDANE /2  
180UJ TOXAPHENE  
89UJ PCB-1016 (AROCOR 1016)  
89UJ PCB-1221 (AROCOR 1221)  
89UJ PCB-1232 (AROCOR 1232)  
89UJ PCB-1242 (AROCOR 1242)  
89UJ PCB-1248 (AROCOR 1248)  
180UJ PCB-1254 (AROCOR 1254)  
180UJ PCB-1260 (AROCOR 1260)  
11 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*

EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-OC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
\*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

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***
** PROJECT NO. 88 621   SAMPLE NO. 30207   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SS-02   COLLECTION START: 09/13/88   STOP: 00/00/00
**
** CASE NO.: 10400   SAS NO.:   D. NO.: L137
***
UG/KG   ANALYTICAL RESULTS   UG/KG   ANALYTICAL RESULTS

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1500U CHLOROMETHANE
1500U BROMOMETHANE
1500U VINYL CHLORIDE
1500U CHLOROETHANE
7000UJ METHYLENE CHLORIDE
8000UJ ACETONE
730U CARBON DISULFIDE
730U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
730U 1,1-DICHLOROETHANE
730U 1,2-DICHLOROETHENE (TOTAL)
730U CHLOROFORM
730U 1,2-DICHLOROETHANE
20000UJ METHYL ETHYL KETONE
730U 1,1,1-TRICHLOROETHANE
730U CARBON TETRACHLORIDE
1500U VINYL ACETATE
730U BROMODICHLOROMETHANE
730U 1,2-DICHLOROPROPANE

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730U CIS-1,3-DICHLOROPROPENE
730U TRICHLOROETHENE(TRICHLOROETHYLENE)
730U DIBROMOCHLOROMETHANE
730U 1,1,2-TRICHLOROETHANE
730U BENZENE
730U TRANS-1,3-DICHLOROPROPENE
730U 2-CHLOROETHYL VINYL ETHER
NA 730U BROMOFORM
1500U METHYL ISOBUTYL KETONE
1500U METHYL BUTYL KETONE
730U TETRACHLOROETHENE(TETRACHLOROETHYLENE)
730U 1,1,2,2-TETRACHLOROETHANE
5000U TOLUENE
730U CHLOROBENZENE
730U ETHYL BENZENE
730U STYRENE
730U TOTAL XYLENES
14 PERCENT MOISTURE

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\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.



SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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***
** PROJECT NO. 88 621   SAMPLE NO. 30207   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SS-02   COLLECTION START: 09/13/88   STOP: 00/00/00
**
** CASE NO.: 10400   SAS NO.:   D. NO.: L137
***
UG/KG   ANALYTICAL RESULTS   UG/KG   ANALYTICAL RESULTS

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390UJ PHENOL
390UJ BIS(2-CHLOROETHYL) ETHER
390UJ 2-CHLOROPHENOL
390UJ 1,3-DICHLOROBENZENE
390UJ 1,4-DICHLOROBENZENE
390UJ BENZYL ALCOHOL
390UJ 1,2-DICHLOROBENZENE
390UJ 2-METHYLPHENOL
390UJ BIS(2-CHLOROISOPROPYL) ETHER
390UJ (3-AND/OR 4-)METHYLPHENOL
390UJ N-NITROSODI-N-PROPYLAMINE
390UJ HEXACHLOROETHANE
390UJ NITROBENZENE
390UJ ISOPHORONE
390UJ 2-NITROPHENOL
390UJ 2,4-DIMETHYLPHENOL
190UJ BENZOIC ACID
390UJ BIS(2-CHLOROETHOXY) METHANE
390UJ 2,4-DICHLOROPHENOL
390UJ 1,2,4-TRICHLOROBENZENE
390UJ NAPHTHALENE
390UJ 4-CHLOROANILINE
390UJ HEXACHLOROBUTADIENE
390UJ 4-CHLORO-3-METHYLPHENOL
390UJ 2-METHYLNAPHTHALENE
390UJ HEXACHLOROCYCLOPENTADIENE (HCCP)
390UJ 2,4,6-TRICHLOROPHENOL
190UJ 2,4,5-TRICHLOROPHENOL
390UJ 2-CHLORONAPHTHALENE
190UJ 2-NITROANILINE
390UJ DIMETHYL PHTHALATE
390UJ ACENAPHTHYLENE
390UJ 2,6-DINITROTOLUENE

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190UJ 3-NITROANILINE
390UJ ACENAPHTHENE
190UJ 2,4-DINITROPHENOL
190UJ 4-NITROPHENOL
390UJ DIBENZOFURAN
390UJ 2,4-DINITROTOLUENE
390UJ DIETHYL PHTHALATE
390UJ 4-CHLOROPHENYL PHENYL ETHER
390UJ FLUORENE
190UJ 4-NITROANILINE
190UJ 2-METHYL-4,6-DINITROPHENOL
390UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
390UJ 4-BROMOPHENYL PHENYL ETHER
390UJ HEXACHLOROBENZENE (HCB)
190UJ PENTACHLOROPHENOL
390UJ PHENANTHRENE
390UJ ANTHRACENE
390UJ DI-N-BUTYLPHTHALATE
390UJ FLUORANTHENE
390UJ PYRENE
390UJ BENZYL BUTYL PHTHALATE
780UJ 3,3'-DICHLOROBENZIDINE
390UJ BENZO(A)ANTHRACENE
390UJ CHRYSENE
370UJ BIS(2-ETHYLHEXYL) PHTHALATE
390UJ DI-N-OCTYLPHTHALATE
390UJ BENZO(B AND/OR K)FLUORANTHENE
390UJ BENZO-A-PYRENE
390UJ INDENO (1,2,3-CD) PYRENE
390UJ DIBENZO(A,H)ANTHRACENE
390UJ BENZO(GHI)PERYLENE
14 PERCENT MOISTURE

```

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT -

\*\*\*  
\*\* PROJECT NO. 88-621      SAMPLE NO. 30207      SAMPLE TYPE. SOIL      PROG ELEM: NSF      COLLECTED BY: A SPAUGH      \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI      CITY: TAMPA      ST: FL      \*\*  
\*\* STATION ID: SS-02      COLLECTION START: 09/13/88      STOP: 00/00/00      \*\*  
\*\* CASE NO.: 10400      SAS NO.:      D. NO.: L137      MD NO:      \*\*  
\*\*  
\*\*\*

RESULTS    UNITS    COMPOUND  
N UG/KG PETROLEUM PRODUCT  
20000J UG/KG 8 UNIDENTIFIED COMPOUNDS

RESULTS    UNITS    COMPOUND  
400JN UG/KG BIS(DIMETHYLETHYL)PHENOL

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*  
\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30207 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CASI-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SS-02 COLLECTION START: 09/13/88 STOP: 00/00/00  
\*\* CASE NUMBER: 10400 SAS NUMBER: D. NUMBER: L137  
\*\*

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
90J	ALPHA-BHC	930J	METHOXYCHLOR
90J	BETA-BHC	1900J	ENDRIN KETONE
90J	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
90J	GAMMA-BHC (LINDANE)	930J	GAMMA-CHLORDANE /2
90J	HEPTACHLOR	930J	ALPHA-CHLORDANE /2
90J	ALDRIN	1900J	TOXAPHENE
20J	HEPTACHLOR EPOXIDE	930J	PCB-1016 (AROCLOR 1016)
90J	ENDOSULFAN I (ALPHA)	930J	PCB-1221 (AROCLOR 1221)
190J	DIELDRIN	930J	PCB-1232 (AROCLOR 1232)
190J	4,4'-DDE (P,P'-DDE)	930J	PCB-1242 (AROCLOR 1242)
190J	ENDRIN	930J	PCB-1248 (AROCLOR 1248)
190J	ENDOSULFAN II (BETA)	1900J	PCB-1254 (AROCLOR 1254)
190J	4,4'-DDD (P,P'-DDD)	1900J	PCB-1260 (AROCLOR 1260)
190J	ENDOSULFAN SULFATE	14	PERCENT MOISTURE
190J	4,4'-DDT (P,P'-DDT)		

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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\*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30208 SAMPLE TYPE: SOIL  
\*\* SOURCE: CASI-CRETE CORPORATI  
\*\* STATION ID: SD-03  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L194  
\*\*\*

PROG ELEM: NSF COLLECTED BY: A SPAUGH  
CITY: TAMPA ST: FL  
COLLECTION START: 09/13/88 STOP: 00/00/00

UG/KG ANALYTICAL RESULTS

12U CHLOROMETHANE  
12U BROMOMETHANE  
12U VINYL CHLORIDE  
12U CHLOROETHANE  
40U METHYLENE CHLORIDE  
60U ACETONE  
6U CARBON DISULFIDE  
6U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
6U 1,1-DICHLOROETHANE  
6U 1,2-DICHLOROETHENE (TOTAL)  
6U CHLOROFORM  
6U 1,2-DICHLOROETHANE  
30UJ METHYL ETHYL KETONE  
6U 1,1,1-TRICHLOROETHANE  
6U CARBON TETRACHLORIDE  
12U VINYL ACETATE  
6U BROMODICHLOROMETHANE  
6U 1,2-DICHLOROPROPANE

UG/KG ANALYTICAL RESULTS

6U CIS-1,3-DICHLOROPROPENE  
6U TRICHLOROETHENE(TRICHLOROETHYLENE)  
6U DIBROMOCHLOROMETHANE  
6U 1,1,2-TRICHLOROETHANE  
6U BENZENE  
6U TRANS-1,3-DICHLOROPROPENE  
2-CHLOROETHYL VINYL ETHER  
6U BROMOFORM  
12U METHYL ISOBUTYL KETONE  
12U METHYL BUTYL KETONE  
6U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
6U 1,1,2,2-TETRACHLOROETHANE  
80U TOLUENE  
6U CHLOROBENZENE  
6U ETHYL BENZENE  
6U STYRENE  
6U TOTAL XYLENES  
20 PERCENT MOISTURE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30208   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SD-03   COLLECTION START: 09/13/88   STOP: 00/00/00
**
** CASE NO.: 10400   SAS NO.:   D. NO.: L194
***
  
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UG/KG	ANALYTICAL RESULTS
420UJ	PHENOL
420UJ	BIS(2-CHLOROTHYL) ETHER
420UJ	2-CHLOROPHENOL
420UJ	1,3-DICHLOROBENZENE
420UJ	1,4-DICHLOROBENZENE
420UJ	BENZYL ALCOHOL
420UJ	1,2-DICHLOROBENZENE
420UJ	2-METHYLPHENOL
420UJ	BIS(2-CHLOROISOPROPYL) ETHER
420UJ	(3-AND/OR 4-)METHYLPHENOL
420UJ	N-NITROSODI-N-PROPYLAMINE
420UJ	HEXACHLOROETHANE
420UJ	NITROBENZENE
420UJ	ISOPHORONE
420UJ	2-NITROPHENOL
420UJ	2,4-DIMETHYLPHENOL
2100UJ	BENZOIC ACID
420UJ	BIS(2-CHLOROETHOXY) METHANE
420UJ	2,4-DICHLOROPHENOL
420UJ	1,2,4-TRICHLOROBENZENE
420UJ	NAPHTHALENE
420UJ	4-CHLOROANILINE
420UJ	HEXACHLOROBUTADIENE
420UJ	4-CHLORO-3-METHYLPHENOL
420UJ	2-METHYLNAPHTHALENE
420UJ	HEXACHLOROCYCLOPENTADIENE (HCCP)
420UJ	2,4,6-TRICHLOROPHENOL
2100UJ	2,4,5-TRICHLOROPHENOL
420UJ	2-CHLORONAPHTHALENE
2100UJ	2-NITROANILINE
420UJ	DIMETHYL PHTHALATE
420UJ	ACENAPHTHYLENE
420UJ	2,6-DINITROTOLUENE

UG/KG	ANALYTICAL RESULTS
2100UJ	3-NITROANILINE
420UJ	ACENAPHTHENE
2100UJ	2,4-DINITROPHENOL
2100UJ	4-NITROPHENOL
420UJ	DIBENZOFURAN
420UJ	2,4-DINITROTOLUENE
420UJ	DIETHYL PHTHALATE
420UJ	4-CHLOROPHENYL PHENYL ETHER
420UJ	FLUORENE
2100UJ	4-NITROANILINE
2100UJ	2-METHYL-4,6-DINITROPHENOL
420UJ	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
420UJ	4-BROMOPHENYL PHENYL ETHER
420UJ	HEXACHLOROENZENE (HCB)
2100UJ	PENTACHLOROPHENOL
420UJ	PHENANTHRENE
420UJ	ANTHRACENE
420UJ	DI-N-BUTYLPHTHALATE
420UJ	FLUORANTHENE
420UJ	PYRENE
420UJ	BENZYL BUTYL PHTHALATE
830UJ	3,3'-DICHLOROBENZIDINE
420UJ	BENZO(A)ANTHRACENE
420UJ	CHRYSENE
420UJ	BIS(2-ETHYLHEXYL) PHTHALATE
420UJ	DI-N-OCTYLPHTHALATE
420UJ	BENZO(B AND/OR K)FLUORANTHENE
420UJ	BENZO-A-PYRENE
420UJ	INDENO (1,2,3-CD) PYRENE
420UJ	DIBENZO(A,H)ANTHRACENE
420UJ	BENZO(GH)PERYLENE
20	PERCENT MOISTURE

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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*** * * * *
** PROJECT NO. 88-621   SAMPLE NO. 30208   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SD-03   COLLECTION START: 09/13/88   STOP: 00/00/00
** CASE NO.: 10400   SAS NO.:   D. NO.: L194   MD NO:
**
*** * * * *

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RESULTS UNITS COMPOUND  
3000J UG/KG 6 UNIDENTIFIED COMPOUNDS

RESULTS UNITS COMPOUND  
3000JN UG/KG THIOBIS(DIMETHYLETHYL)METHYLPHENOL

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*  
 \*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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*** * * * *
** PROJECT NO. 88 621   SAMPLE NO. 30208   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SD-03   COLLECTION START: 09/13/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L194
**
*** * * * *

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UG/KG ANALYTICAL RESULTS

10UJ ALPHA-BHC  
 10UJ BETA-BHC  
 10UJ DELTA-BHC  
 10UJ GAMMA-BHC (LINDANE)  
 10UJ HEPTACHLOR  
 10UJ ALDRIN  
 10UJ HEPTACHLOR EPOXIDE  
 10UJ ENDOSULFAN I (ALPHA)  
 20UJ DIELDRIN  
 20UJ 4,4'-DDE (P,P'-DDE)  
 20UJ ENDRIN  
 20UJ ENDOSULFAN II (BETA)  
 20UJ 4,4'-DDD (P,P'-DDD)  
 20UJ ENDOSULFAN SULFATE  
 20UJ 4,4'-DDT (P,P'-DDT)

UG/KG ANALYTICAL RESULTS

100UJ METHOXYCHLOR  
 200UJ ENDRIN KETONE  
 -- CHLORDANE (TECH. MIXTURE) /1  
 100UJ GAMMA-CHLORDANE /2  
 100UJ ALPHA-CHLORDANE /2  
 200UJ TOXAPHENE  
 100UJ PCB-1016 (AROCLOR 1016)  
 100UJ PCB-1221 (AROCLOR 1221)  
 100UJ PCB-1232 (AROCLOR 1232)  
 100UJ PCB-1242 (AROCLOR 1242)  
 100UJ PCB-1248 (AROCLOR 1248)  
 200UJ PCB-1254 (AROCLOR 1254)  
 200UJ PCB-1260 (AROCLOR 1260)  
 20 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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 \*C-CONFIRMED BY GCMS    1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30206 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SS-03 COLLECTION START: 09/13/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L193  
\*\*\*

UG/KG ANALYTICAL RESULTS

15U CHLOROMETHANE  
15U BROMOMETHANE  
15U VINYL CHLORIDE  
15U CHLOROFI HANE  
50U METHYLENE CHLORIDE  
40U ACETONE  
7U CARBON DISULFIDE  
7U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
7U 1,1-DICHLOROETHANE  
7U 1,2-DICHLOROETHENE (TOTAL)  
7U CHLOROFORM  
7U 1,2-DICHLOROETHANE  
30UJ METHYL ETHYL KETONE  
7U 1,1,1-TRICHLOROETHANE  
7U CARBON TETRACHLORIDE  
15U VINYL ACETATE  
7U BROMODICHLOROMETHANE  
7U 1,2-DICHLOROPROPANE

UG/KG ANALYTICAL RESULTS

7U CIS-1,3-DICHLOROPROPENE  
7U TRICHLOROETHENE(TRICHLOROETHYLENE)  
7U DIBROMOCHLOROMETHANE  
7U 1,1,2-TRICHLOROETHANE  
7U BENZENE  
7U TRANS-1,3-DICHLOROPROPENE  
NA 2-CHLOROETHYL VINYL ETHER  
7U BROMOFORM  
15U METHYL ISOBUTYL KETONE  
15U METHYL BUTYL KETONE  
7U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
7U 1,1,2,2-TETRACHLOROETHANE  
300U TOLUENE  
7U CHLOROBENZENE  
7U ETHYL BENZENE  
7U STYRENE  
7U TOTAL XYLENES  
33 PERCENT MOISTURE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30206   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: 55-03   COLLECTION START: 09/13/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.: L193   MD NO:   **
**
***
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RESULTS UNITS COMPOUND  
10JN UG/KG METHYLPROPYLBENZENE

RESULTS UNITS COMPOUND

\*\*\*FOOTNOTES\*\*\*

- \*A-AVERAGE VALUE
- \*NA-NOT ANALYZED
- \*NAI-INTERFERENCES
- \*J-ESTIMATED VALUE
- \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
- \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30206   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SS-03   COLLECTION START: 09/13/88   STOP: 00/00/00
**
** CASE NO.: 10400   SAS NO.:   D. NO.: L193
**
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UG/KG ANALYTICAL RESULTS

490UJ PHENOL  
 490UJ BIS(2-CHLOROETHYL) ETHER  
 490UJ 2-CHLOROPHENOL  
 490UJ 1,3-DICHLOROBENZENE  
 490UJ 1,4-DICHLOROBENZENE  
 490UJ BENZYL ALCOHOL  
 490UJ 1,2-DICHLOROBENZENE  
 490UJ 2-METHYLPHENOL  
 490UJ BIS(2-CHLOROISOPROPYL) ETHER  
 490UJ (3-AND/OR 4-)METHYLPHENOL  
 490UJ N-NITROSODI-N-PROPYLAMINE  
 490UJ HEXACHLOROETHANE  
 490UJ NITROBENZENE  
 490UJ ISOPHORONE  
 490UJ 2-NITROPHENOL  
 490UJ 2,4-DIMETHYLPHENOL  
 2500UJ BENZOIC ACID  
 490UJ BIS(2-CHLOROETHOXY) METHANE  
 490UJ 2,4-DICHLOROPHENOL  
 490UJ 1,2,4-TRICHLOROBENZENE  
 490UJ NAPHTHALENE  
 490UJ 4-CHLOROANILINE  
 490UJ HEXACHLOROBUTADIENE  
 490UJ 4-CHLORO-3-METHYLPHENOL  
 490UJ 2-METHYLNAPHTHALENE  
 490UJ HEXACHLOROCYCLOPENTADIENE (HCCP)  
 490UJ 2,4,6-TRICHLOROPHENOL  
 2500UJ 2,4,5-TRICHLOROPHENOL  
 490UJ 2-CHLORONAPHTHALENE  
 2500UJ 2-NITROANILINE  
 490UJ DIMETHYL PHTHALATE  
 490UJ ACENAPHTHYLENE  
 490UJ 2,6-DINITROTOLUCNE

UG/KG ANALYTICAL RESULTS

2500UJ 3-NITROANILINE  
 490UJ ACENAPHTHENE  
 2500UJ 2,4-DINITROPHENOL  
 2500UJ 4-NITROPHENOL  
 490UJ DIBENZOFURAN  
 490UJ 2,4-DINITROTOLUENE  
 490UJ DIETHYL PHTHALATE  
 490UJ 4-CHLOROPHENYL PHENYL ETHER  
 490UJ FLUORENE  
 2500UJ 4-NITROANILINE  
 2500UJ 2-METHYL-4,6-DINITROPHENOL  
 490UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
 490UJ 4-BROMOPHENYL PHENYL ETHER  
 490UJ HEXACHLOROEBENZENE (HCB)  
 2500UJ PENTACHLOROPHENOL  
 490UJ PHENANTHRENE  
 490UJ ANTHRACENE  
 490UJ DI-N-BUTYLPHTHALATE  
 490UJ FLUORANTHENE  
 490UJ PYRENE  
 490UJ BENZYL BUTYL PHTHALATE  
 990UJ 3,3'-DICHLOROBENZIDINE  
 490UJ BENZO(A)ANTHRACENE  
 490UJ CHRYSENE  
 490UJ BIS(2-ETHYLHEXYL) PHTHALATE  
 490UJ DI-N-OCTYLPHTHALATE  
 490UJ BENZO(B AND/OR K)FLUORANTHENE  
 490UJ BENZO-A-PYRENE  
 490UJ INDENO (1,2,3-CD) PYRENE  
 490UJ DIBENZO(A,H)ANTHRACENE  
 490UJ BENZO(GHI)PERYLENE  
 33 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRFSENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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** PROJECT NO. 88-621   SAMPLE NO. 30206   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SS-03   COLLECTION START: 09/13/88   STOP: 00/00/00
** CASE NO.: 10400   SAS NO.:   D. NO.: L193   MD NO:
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RESULTS UNITS COMPOUND  
N UC/KG PETROLEUM PRODUCT  
1000JN UG/KG DIETHYLMETHYLBENZENE  
1000JN UG/KG ETHYLDIMETHYLBENZENE

RESULTS UNITS COMPOUND  
2000JN UG/KG CHLOROMETHYLBENZENE  
1000JN UG/KG TETRAMETHYLBENZENE  
200000J UG/KG 14 UNIDENTIFIED COMPOUNDS

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*  
 \*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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\*\* PROJECT NO. 88 621 SAMPLE NO. 30206 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SS-03 COLLECTION START: 09/13/88 STOP: 00/00/00  
\*\* CASE NUMBER: 10400 SAS NUMBER: D. NUMBER: L193  
\*\*  
\*\*\*

UG/KG ANALYTICAL RESULTS

120J ALPHA-BHC  
120J BETA-BHC  
120J DELTA-BHC  
120J GAMMA-BHC (LINDANE)  
120J HEPTACHLOR  
120J ALDRIN  
120J HEPTACHLOR EPOXIDE  
120J ENDOSULFAN I (ALPHA)  
240J DIELDRIN  
240J 4,4'-DDE (P,P'-DDE)  
240J ENDRIN  
240J ENDOSULFAN II (BETA)  
240J 4,4'-DDD (P,P'-DDD)  
240J ENDOSULFAN SULFATE  
240J 4,4'-DDT (P,P'-DDT)

UG/KG ANALYTICAL RESULTS

1200J METHOXYCHLOR  
2400J ENDRIN KETONE  
-- CHLORDANE (TECH. MIXTURE) /1  
1200J GAMMA-CHLORDANE /2  
1200J ALPHA-CHLORDANE /2  
2400J TOXAPHENE  
1200J PCB-1016 (AROCLOR 1016)  
1200J PCB-1221 (AROCLOR 1221)  
1200J PCB-1232 (AROCLOR 1232)  
1200J PCB-1242 (AROCLOR 1242)  
1200J PCB-1248 (AROCLOR 1248)  
2400J PCB-1254 (AROCLOR 1254)  
2400J PCB-1260 (AROCLOR 1260)  
32 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
\*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30203   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SS-04   COLLECTION START: 09/12/88   STOP: 00/00/00
**
** CASE NO.: 10400   SAS NO.:   D. NO.: L135
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UG/KG      ANALYTICAL RESULTS
18U CHLOROMETHANE
18U BROMOMETHANE
18U VINYL CHLORIDE
18U CHLOROETHANE
60U METHYLENE CHLORIDE
60U ACETONE
9U CARBON DISULFIDE
9U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
9U 1,1-DICHLOROETHANE
9U 1,2-DICHLOROETHENE (TOTAL)
9U CHLOROFORM
9U 1,2-DICHLOROETHANE
50UJ METHYL ETHYL KETONE
9U 1,1,1-TRICHLOROETHANE
9U CARBON TETRACHLORIDE
18U VINYL ACETATE
9U BROMODICHLOROMETHANE
9U 1,2-DICHLOROPROPANE
  
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UG/KG      ANALYTICAL RESULTS
9U CIS-1,3-DICHLOROPROPENE
9U TRICHLOROETHENE(TRICHLOROETHYLENE)
9U DIBROMOCHLOROMETHANE
9U 1,1,2-TRICHLOROETHANE
9U BENZENE
9U TRANS-1,3-DICHLOROPROPENE
NA 2-CHLOROETHYL VINYL ETHER
9U BROMOFORM
18U METHYL ISOBUTYL KETONE
18U METHYL BUTYL KETONE
9U TETRACHLOROETHENE(TETRACHLOROETHYLENE)
9U 1,1,2,2-TETRACHLOROFTHANE
200U TOLUENE
9U CHLOROBENZENE
9U ETHYL BENZENE
9U STYRENE
9U TOTAL XYLENES
45 PERCENT MOISTURE
  
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\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

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*** * * * *
** PROJECT NO. 88-621   SAMPLE NO. 30203   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-04   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.: L135   M1 NO:   **
** * * * * *

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RESULTS UNITS COMPOUND  
40JN UG/KG PROPENE

RESULTS UNITS COMPOUND  
20J UG/KG 1 UNIDENTIFIED COMPOUND

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30203 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SS-04 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L135  
\*\*\*

UG/KG ANALYTICAL RESULTS

600UJ PHENOL  
600UJ BIS(2-CHLOROETHYL) ETHER  
600UJ 2-CHLOROPHENOL  
600UJ 1,3-DICHLOROBENZENE  
600UJ 1,4-DICHLOROBENZENE  
600UJ BENZYL ALCOHOL  
600UJ 1,2-DICHLOROBENZENE  
600UJ 2-METHYLPHENOL  
600UJ BIS(2-CHLOROISOPROPYL) ETHER  
600UJ (3-AND/OR 4-)METHYLPHENOL  
600UJ N-NITROSODI-N-PROPYLAMINE  
600UJ HEXACHLOROETHANE  
600UJ NITROBENZENE  
600UJ ISOPHORONE  
600UJ 2-NITROPHENOL  
600UJ 2,4-DIMETHYLPHENOL  
3000UJ BENZOIC ACID  
600UJ BIS(2-CHLOROETHOXY) METHANE  
600UJ 2,4-DICHLOROPHENOL  
600UJ 1,2,4-TRICHLOROBENZENE  
600UJ NAPHTHALENE  
600UJ 4-CHLOROANILINE  
600UJ HEXACHLOROBUTADIENE  
600UJ 4-CHLORO-3-METHYLPHENOL  
600UJ 2-METHYLNAPHTHALENE  
600UJ HEXACHLOROCYCLOPENTADIENE (HCCP)  
600UJ 2,4,6-TRICHLOROPHENOL  
3000UJ 2,4,5-TRICHLOROPHENOL  
600UJ 2-CHLORONAPHTHALENE  
3000UJ 2-NITROANILINE  
600UJ DIMETHYL PHTHALATE  
600UJ ACENAPHTHYLENE  
600UJ 2,6-DINITROTOLUENE

UG/KG ANALYTICAL RESULTS

3000UJ 3-NITROANILINE  
600UJ ACENAPHTHENE  
3000UJ 2,4-DINITROPHENOL  
3000UJ 4-NITROPHENOL  
600UJ DIBENZOFURAN  
600UJ 2,4-DINITROTOLUENE  
600UJ DIETHYL PHTHALATE  
600UJ 4-CHLOROPHENYL PHENYL ETHER  
600UJ FLUORENE  
3000UJ 4-NITROANILINE  
3000UJ 2-METHYL-4,6-DINITROPHENOL  
600UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
600UJ 4-BROMOPHENYL PHENYL ETHER  
600UJ HEXACHLOROBENZENE (HCB)  
3000UJ PENTACHLOROPHENOL  
600UJ PHENANTHRENE  
600UJ ANTHRACENE  
600UJ DI-N-BUTYLPHTHALATE  
600UJ FLUORANTHENE  
600UJ PYRENE  
600UJ BENZYL BUTYL PHTHALATE  
1200UJ 3,3'-DICHLOROBENZIDINE  
600UJ BENZO(A)ANTHRACENE  
600UJ CHRYSENE  
600UJ BIS(2-ETHYLHEXYL) PHTHALATE  
600UJ DI-N-OCTYLPHTHALATE  
600UJ BENZO(B AND/OR K)FLUORANTHENE  
600UJ BENZO-A-PYRENE  
600UJ INDENO (1,2,3-CD) PYRENE  
600UJ DIBENZO(A,H)ANTHRACENE  
600UJ BENZO(GHI)PERYLENE  
45 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621      SAMPLE NO. 30203      SAMPLE TYPE: SOIL      PROG ELEM: NSF      COLLECTED BY: A SPAUGH      \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI      CITY: TAMPA      ST: FL      \*\*  
\*\* STATION ID: SS-04      COLLECTION START: 09/12/88      STOP: 00/00/00      \*\*  
\*\* CASE NO.: 10400      SAS NO.:      D. NO.: L135      MD NO:      \*\*  
\*\*  
\*\*\*

RESULTS    UNITS    COMPOUND  
30000J    UG/KG    13 UNIDENTIFIED COMPOUNDS

RESULTS    UNITS    COMPOUND

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*  
\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30203   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CASI-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SS-04   COLLECTION START: 09/12/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L135
**

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UG/KG ANALYTICAL RESULTS

14UJ ALPHA-BHC  
14UJ BETA-BHC  
14UJ DELTA-BHC  
14UJ GAMMA-BHC (LINDANE)  
14UJ HEPTACHLOR  
14UJ ALDRIN  
14UJ HEPTACHLOR EPOXIDE  
14UJ ENDOSULFAN I (ALPHA)  
29UJ DIELDRIN  
29UJ 4,4'-DDE (P,P'-DDE)  
29UJ ENDRIN  
29UJ ENDOSULFAN II (BETA)  
29UJ 4,4'-DDD (P,P'-DDD)  
29UJ ENDOSULFAN SULFATE  
29UJ 4,4'-DDT (P,P'-DDT)

UG/KG ANALYTICAL RESULTS

140UJ METHOXYCHLOR  
290UJ ENDRIN KETONE  
-- CHLORDANE (TECH. MIXTURE) /1  
140UJ GAMMA-CHLORDANE /2  
140UJ ALPHA-CHLORDANE /2  
290UJ TOXAPHENE  
140UJ PCB-1016 (AROCOR 1016)  
140UJ PCB-1221 (AROCOR 1221)  
140UJ PCB-1232 (AROCOR 1232)  
140UJ PCB-1242 (AROCOR 1242)  
140UJ PCB-1248 (AROCOR 1248)  
290UJ PCB-1254 (AROCOR 1254)  
290UJ PCB-1260 (AROCOR 1260)  
45 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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\*C-CONFIRMED BY GCMS    1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30205 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: MW-01 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L129  
\*\*\*

UG/L ANALYTICAL RESULTS

10UJ CHLOROMETHANE  
10U BROMOMETHANE  
10U VINYL CHLORIDE  
10U CHLOROETHANE  
8U METHYLENE CHLORIDE  
10UJ ACETONE  
5UJ CARBON DISULFIDE  
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
5U 1,1-DICHLOROETHANE  
5U 1,2-DICHLOROETHENE (TOTAL)  
5U CHLOROFORM  
5U 1,2-DICHLOROETHANE  
20UJ METHYL ETHYL KETONE  
5U 1,1,1-TRICHLOROETHANE  
5UJ CARBON TETRACHLORIDE  
10U VINYL ACETATE  
5U BROMODICHLOROMETHANE  
5U 1,2-DICHLOROPROPANE

UG/L ANALYTICAL RESULTS

5U CIS-1,3-DICHLOROPROPENE  
5U TRICHLOROETHENE(TRICHLOROETHYLENE)  
5U DIBROMOCHLOROMETHANE  
5U 1,1,2-TRICHLOROETHANE  
5U BENZENE  
5U TRANS-1,3-DICHLOROPROPENE  
NA 2-CHLOROETHYL VINYL ETHER  
5U BROMOFORM  
10U METHYL ISOBUTYL KETONE  
10U METHYL BUTYL KETONE  
5U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
5U 1,1,2,2-TETRACHLOROETHANE  
6U TOLUENE  
5U CHLOROBENZENE  
5U ETHYL BENZENE  
5U STYRENE  
5U TOTAL XYLENES

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\* PROJECT NO. 88-621 SAMPLE NO. 30205 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: MW-01 COLLECTION START: 09/12/88 STOP: 00/00/00

\*\*\* CASE NO.: 10400 SAS NO.: D. NO.: L129

UG/L ANALYTICAL RESULTS

10UJ PHENOL  
10U BIS(2-CHLOROPHTYL) ETHER  
10U 2-CHLOROPHENOL  
10U 1,3-DICHLOROBENZENE  
10U 1,4-DICHLOROBENZENE  
10U BENZYL ALCOHOL  
10U 1,2-DICHLOROBENZENE  
10U 2-METHYLPHENOL  
10U BIS(2-CHLOROISOPROPYL) ETHER  
10U (3-AND/OR 4-)METHYLPHENOL  
10U N-NITROSODI-N-PROPYLAMINE  
10U HEXACHLOROETHANE  
10U NITROBENZENE  
10U ISOPHORONE  
10U 2-NITROPHENOL  
10U 2,4-DIMETHYLPHENOL  
50UJ BENZOIC ACID  
10U BIS(2-CHLOROETHOXY) METHANE  
10U 2,4-DICHLOROPHENOL  
10U 1,2,4-TRICHLOROBENZENE  
10U NAPHTHALENE  
10U 4-CHLOROANILINE  
10U HEXACHLOROBUTADIENE  
10U 4-CHLORO-3-METHYLPHENOL  
10U 2-METHYLNAPHTHALENE  
10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
10U 2,4,6-TRICHLOROPHENOL  
50U 2,4,5-TRICHLOROPHENOL  
10U 2-CHLORONAPHTHALENE  
50U 2-NITROANILINE  
10U DIMETHYL PHTHALATE  
10U ACENAPHTHYLENE  
10U 2,6-DINITROTOLUENE

UG/L ANALYTICAL RESULTS

50U 3-NITROANILINE  
10U ACENAPHTHENE  
50U 2,4-DINITROPHENOL  
50UJ 4-NITROPHENOL  
10U DIBENZOFURAN  
10U 2,4-DINITROTOLUENE  
10U DIETHYL PHTHALATE  
10U 4-CHLOROPHENYL PHENYL ETHER  
10U FLUORENE  
50U 4-NITROANILINE  
50U 2-METHYL-4,6-DINITROPHENOL  
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
10U 4-BROMOPHENYL PHENYL ETHER  
10U HEXACHLOROBENZENE (HCB)  
50U PENTACHLOROPHENOL  
10U PHENANTHRENE  
10U ANTHRACENE  
10U DI-N-BUTYLPHTHALATE  
10U FLUORANTHENE  
10U PYRENE  
10U BENZYL BUTYL PHTHALATE  
20U 3,3'-DICHLOROBENZIDINE  
10U BENZO(A)ANTHRACENE  
10U CHRYSENE  
30U BIS(2-ETHYLHEXYL) PHTHALATE  
10U DI-N-OCTYLPHTHALATE  
10U BENZO(B AND/OR K)FLUORANTHENE  
10U BENZO-A-PYRENE  
10U INDENO (1,2,3-CD) PYRENE  
10U DIBENZO(A,H)ANTHRACENE  
10U BENZO(GH)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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*** * * * *
** PROJECT NO. 88-621   SAMPLE NO. 30205   SAMPLE TYPE: GROUNDWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CASI-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: MW-01   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L129   **
** * * * * *
  
```

UG/L ANALYTICAL RESULTS

```

.05U ALPHA-BHC
.05U BETA-BHC
.05U DELTA-BHC
.05U GAMMA-BHC (LINDANE)
.05U HEPTACHLOR
.05U ALDRIN
.05U HEPTACHLOR EPOXIDE
.05U ENDOSULFAN I (ALPHA)
.1U DIELDRIN
.1U 4,4'-DDE (P,P'-DDE)
.1U ENDRIN
.1U ENDOSULFAN II (BETA)
.1U 4,4'-DDD (P,P'-DDD)
.1U ENDOSULFAN SULFATE
.1U 4,4'-DDT (P,P'-DDT)
  
```

UG/L ANALYTICAL RESULTS

```

.5U METHOXYCHLOR
.1U ENDRIN KETONE
-- CHLORDANE (TECH. MIXTURE) /1
.5U GAMMA-CHLORDANE /2
.5U ALPHA-CHLORDANE /2
.1U TOXAPHENE
.5U PCB-1016 (AROCOR 1016)
.5U PCB-1221 (AROCOR 1221)
.5U PCB-1232 (AROCOR 1232)
.5U PCB-1242 (AROCOR 1242)
.5U PCB-1248 (AROCOR 1248)
.1U PCB-1254 (AROCOR 1254)
.1U PCB-1260 (AROCOR 1260)
  
```

\*\*\*FOOTNOTES\*\*\*

```

*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.
*C-CONFIRMED BY GCMS   1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
  
```

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30196 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: PW-01 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L132  
\*\*\*

UG/L ANALYTICAL RESULTS

10UJ CHLOROMETHANE  
10U BROMOMETHANE  
10U VINYL CHLORIDE  
10U CHLOROETHANE  
8U METHYLENE CHLORIDE  
10UJ ACETONE  
5UJ CARBON DISULFIDE  
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
5U 1,1-DICHLOROETHANE  
5U 1,2-DICHLOROETHENE (TOTAL)  
1J CHLOROFORM  
5U 1,2-DICHLOROETHANE  
20UJ METHYL ETHYL KETONE  
5U 1,1,1-TRICHLOROETHANE  
5UJ CARBON TETRACHLORIDE  
10U VINYL ACETATE  
5U BROMODICHLOROMETHANE  
5U 1,2-DICHLOROPROPANE

NA

UG/L ANALYTICAL RESULTS

5U CIS-1,3-DICHLOROPROPENE  
5U TRICHLOROETHENE (TRICHLOROETHYLENE)  
5U DIBROMOCHLOROMETHANE  
5U 1,1,2-TRICHLOROETHANE  
5U BENZENE  
5U TRANS-1,3-DICHLOROPROPENE  
5U 2-CHLOROETHYL VINYL ETHER  
5U BROMOFORM  
10U METHYL ISOBUTYL KETONE  
10U METHYL BUTYL KETONE  
5U TETRACHLOROETHENE (TETRACHLOROETHYLENE)  
5U 1,1,2,2-TETRACHLOROFTHANE  
5U TOLUENE  
5U CHLOROBENZENE  
5U ETHYL BENZENE  
5U STYRENE  
5U TOTAL XYLENES

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30196   SAMPLE TYPE: GROUNDWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: PW-01   COLLECTION START: 09/12/88   STOP: 00/00/00
**
** CASE NO.: 10400   SAS NO.:   D. NO.: L132
***
UG/L   ANALYTICAL RESULTS   UG/L   ANALYTICAL RESULTS

```

10UJ PHENOL  
 10U BIS(2-CHLOROTHYL) ETHER  
 10U 2-CHLOROPHENOL  
 10U 1,3-DICHLOROBENZENE  
 10U 1,4-DICHLOROBENZENE  
 10U BENZYL ALCOHOL  
 10U 1,2-DICHLOROBENZENE  
 10U 2-METHYLPHENOL  
 10U BIS(2-CHLOROISOPROPYL) ETHER  
 10U (3-AND/OR 4-)METHYLPHENOL  
 10U N-NITROSODI-N-PROPYLAMINE  
 10U HEXACHLOROETHANE  
 10U NITROBENZENE  
 10U ISOPHORONE  
 10U 2-NITROPHENOL  
 10U 2,4-DIMETHYLPHENOL  
 50UJ BENZOIC ACID  
 10U BIS(2-CHLOROETHOXY) METHANE  
 10U 2,4-DICHLOROPHENOL  
 10U 1,2,4-TRICHLOROBENZENE  
 10U NAPHTHALENE  
 10U 4-CHLOROANILINE  
 10U HEXACHLOROBUTADIENE  
 10U 4-CHLORO-3-METHYLPHENOL  
 10U 2-METHYLNAPHTHALENE  
 10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
 10U 2,4,6-TRICHLOROPHENOL  
 50U 2,4,5-TRICHLOROPHENOL  
 10U 2-CHLORONAPHTHALENE  
 50U 2-NITROANILINE  
 10U DIMETHYL PHTHALATE  
 10U ACENAPHTHYLENE  
 10U 2,6-DINITROTOLUENE

50U 3-NITROANILINE  
 10U ACENAPHTHENE  
 50U 2,4-DINITROPHENOL  
 50UJ 4-NITROPHENOL  
 10U DIBENZOFURAN  
 10U 2,4-DINITROTOLUENE  
 10U DIETHYL PHTHALATE  
 10U 4-CHLOROPHENYL PHENYL ETHER  
 10U FLUORENE  
 50U 4-NITROANILINE  
 50U 2-METHYL-4,6-DINITROPHENOL  
 10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
 10U 4-BROMOPHENYL PHENYL ETHER  
 10U HEXACHLOROBENZENE (HCB)  
 50U PENTACHLOROPHENOL  
 10U PHENANTHRENE  
 10U ANTHRACENE  
 10U DI-N-BUTYLPHTHALATE  
 10U FLUORANTHENE  
 10U PYRENE  
 10U BENZYL BUTYL PHTHALATE  
 20U 3,3'-DICHLOROBENZIDINE  
 10U BENZO(A)ANTHRACENE  
 10U CHRYSENE  
 30U BIS(2-ETHYLHEXYL) PHTHALATE  
 10U DI-N-OCTYLPHTHALATE  
 10U BENZO(B AND/OR K)FLUORANTHENE  
 10U BENZO-A-PYRENE  
 10U INDENO (1,2,3-CD) PYRENE  
 10U DIBENZO(A,H)ANTHRACENE  
 10U BENZO(GHI)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88 621    SAMPLE NO. 30196    SAMPLE TYPE: GROUNDWA    PROG ELEM: NSF    COLLECTED BY: A SPAUGH    \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL    \*\*  
\*\* STATION ID: PW-01    COLLECTION START: 09/12/88    STOP: 00/00/00    \*\*  
\*\* CASE NUMBER: 10400    SAS NUMBER:    D. NUMBER: L132    \*\*  
\*\*  
\*\*\*

UG/L    ANALYTICAL RESULTS

.05U ALPHA-BHC  
.05U BETA-BHC  
.05U DELTA-BHC  
.05U GAMMA-BHC (LINDANE)  
.05U HEPTACHLOR  
.05U ALDRIN  
.05U HEPTACHLOR EPOXIDE  
.05U ENDOSULFAN I (ALPHA)  
.1U DIELDRIN  
.1U 4,4'-DDE (P,P'-DDE)  
.1U ENDRIN  
.1U ENDOSULFAN II (BETA)  
.1U 4,4'-DDD (P,P'-DDD)  
.1U ENDOSULFAN SULFATE  
.1U 4,4'-DDT (P,P'-DDT)

UG/L    ANALYTICAL RESULTS

.5U METHOXYCHLOR  
.1U ENDRIN KETONE  
-- CHLORDANE (TECH. MIXTURE) /1  
.5U GAMMA-CHLORDANE /2  
.5U ALPHA-CHLORDANE /2  
.1U TOXAPHENE  
.5U PCB-1016 (AROCLOR 1016)  
.5U PCB-1221 (AROCLOR 1221)  
.5U PCB-1232 (AROCLOR 1232)  
.5U PCB-1242 (AROCLOR 1242)  
.5U PCB-1248 (AROCLOR 1248)  
.1U PCB-1254 (AROCLOR 1254)  
.1U PCB-1260 (AROCLOR 1260)

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
\*C-CONFIRMED BY GCMS    1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30204 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-04 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L130  
\*\*\*  
UG/I ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

10UJ CHLOROMETHANE  
10U BROMOMETHANE  
10U VINYL CHLORIDE  
10U CHLOROETHANE  
20U METHYLENE CHLORIDE  
10UJ ACETONE  
5UJ CARBON DISULFIDE  
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
5U 1,1-DICHLOROETHANE  
5U 1,2-DICHLOROETHENE (TOTAL)  
5U CHLOROFORM  
5U 1,2-DICHLOROETHANE  
20UJ METHYL ETHYL KETONE  
5U 1,1,1-TRICHLOROETHANE  
5UJ CARBON TETRACHLORIDE  
10U VINYL ACETATE  
5U BROMODICHLOROMETHANE  
5U 1,2-DICHLOROPROPANE

NA

5U CIS-1,3-DICHLOROPROPENE  
5U TRICHLOROETHENE(TRICHLOROETHYLENE)  
5U DIBROMOCHLOROMETHANE  
5U 1,1,2-TRICHLOROETHANE  
5U BENZENE  
5U TRANS-1,3-DICHLOROPROPENE  
2-CHLOROETHYL VINYL ETHER  
5U BROMOFORM  
10U METHYL ISOBUTYL KETONE  
10U METHYL BUTYL KETONE  
5U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
5U 1,1,2,2-TETRACHLOROETHANE  
5U TOLUENE  
5U CHLOROBENZENE  
5U ETHYL BENZENE  
5U STYRENE  
5U TOTAL XYLENES

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30204 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-04 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L130  
\*\*\*

UG/L ANALYTICAL RESULTS

UG/L ANALYTICAL RESULTS

10UJ PHENOL  
10U BIS(2-CHLOROTHYL) ETHER  
10U 2-CHLOROPHENOL  
10U 1,3-DICHLOROBENZENE  
10U 1,4-DICHLOROBENZENE  
10U BENZYL ALCOHOL  
10U 1,2-DICHLOROBENZENE  
10U 2-METHYLPHENOL  
10U BIS(2-CHLOROISOPROPYL) ETHER  
10U (3-AND/OR 4-)METHYLPHENOL  
10U N-NITROSODI-N-PROPYLAMINE  
10U HEXACHLOROETHANE  
10U NITROBENZENE  
10U ISOPHORONE  
10U 2-NITROPHENOL  
10U 2,4-DIMETHYLPHENOL  
50UJ BENZOIC ACID  
10U BIS(2-CHLOROETHOXY) METHANE  
10U 2,4-DICHLOROPHENOL  
10U 1,2,4-TRICHLOROBENZENE  
10U NAPHTHALENE  
10U 4-CHLOROANILINE  
10U HEXACHLOROBUTADIENE  
10U 4-CHLORO-3-METHYLPHENOL  
10U 2-METHYLNAPHTHALENE  
10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
10U 2,4,6-TRICHLOROPHENOL  
50UJ 2,4,5-TRICHLOROPHENOL  
10U 2-CHLORONAPHTHALENE  
50U 2-NITROANILINE  
10U DIMETHYL PHTHALATE  
10U ACENAPHTHYLENE  
10U 2,6-DINITROTOLUENE

50U 3-NITROANILINE  
10U ACENAPHTHENE  
50UJ 2,4-DINITROPHENOL  
50U 4-NITROPHENOL  
10U DIBENZOFURAN  
10U 2,4-DINITROTOLUENE  
10U DIETHYL PHTHALATE  
10U 4-CHLOROPHENYL PHENYL ETHER  
10U FLUORENE  
50U 4-NITROANILINE  
50U 2-METHYL-4,6-DINITROPHENOL  
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
10U 4-BROMOPHENYL PHENYL ETHER  
10U HEXACHLOROBENZENE (HCB)  
50U PENTACHLOROPHENOL  
10U PHENANTHRENE  
10U ANTHRACENE  
10U DI-N-BUTYLPHTHALATE  
10U FLUORANTHENE  
10U PYRENE  
10U BENZYL BUTYL PHTHALATE  
20U 3,3'-DICHLOROBENZIDINE  
10U BENZO(A)ANTHRACENE  
10U CHRYSENE  
30U BIS(2-ETHYLHEXYL) PHTHALATE  
10U DI-N-OCTYLPHTHALATE  
10U BENZO(B AND/OR K)FLUORANTHENE  
10U BENZO-A-PYRENE  
10U INDENO (1,2,3-CD) PYRENE  
10U DIBENZO(A,H)ANTHRACENE  
10U BENZO(GHI)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

```

***
** PROJECT NO. 88-621   SAMPLE NO. 30204   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SW-04   COLLECTION START: 09/12/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L130
**

```

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
.07UJ	ALPHA-BHC	.7UJ	METHOXYCHLOR
.07UJ	BETA-BHC	.1UJ	ENDRIN KETONE
.07UJ	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
.07UJ	GAMMA-BHC (LINDANE)	.7UJ	GAMMA-CHLORDANE /2
.07UJ	HEPTACHLOR	.7UJ	ALPHA-CHLORDANE /2
.07UJ	ALDRIN	.1UJ	TOXAPHENE
.07UJ	HEPTACHLOR EPOXIDE	.7UJ	PCB-1016 (AROCLOR 1016)
.1UJ	ENDOSULFAN I (ALPHA)	.7UJ	PCB-1221 (AROCLOR 1221)
.1UJ	DIELDRIN	.7UJ	PCB-1232 (AROCLOR 1232)
.1UJ	4,4'-DDE (P,P'-DDE)	.7UJ	PCB-1242 (AROCLOR 1242)
.1UJ	ENDRIN	.7UJ	PCB-1248 (AROCLOR 1248)
.1UJ	ENDOSULFAN II (BETA)	.1UJ	PCB-1254 (AROCLOR 1254)
.1UJ	4,4'-DDD (P,P'-DDD)	.1UJ	PCB-1260 (AROCLOR 1260)
.1UJ	ENDOSULFAN SULFATE		
.1UJ	4,4'-DDT (P,P'-DDT)		

\*\*\*REMARKS\*\*\*

HOLDING TIMES EXCEEDED(40 CFR 136, OCTOBER 26, 1984)

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-OC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
 \*C-CONFIRMED BY GCMS    1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88 621 SAMPLE NO. 30197 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-05 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L133  
\*\*\*  
UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

10UJ CHLOROMETHANE  
10U BROMOMETHANE  
10U VINYL CHLORIDE  
10U CHLOROETHANE  
8U METHYLENE CHLORIDE  
20UJ ACETONE  
5UJ CARBON DISULFIDE  
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
5U 1,1-DICHLOROETHANE  
5U 1,2-DICHLOROETHENE (TOTAL)  
5U CHLOROFORM  
5U 1,2-DICHLOROETHANE  
20UJ METHYL ETHYL KETONE  
5U 1,1,1-TRICHLOROETHANE  
5UJ CARBON TETRACHLORIDE  
10U VINYL ACETATE  
5U BROMODICHLOROMETHANE  
5U 1,2-DICHLOROPROPANE

NA

5U CIS-1,3-DICHLOROPROPENE  
5U TRICHLOROETHENE(TRICHLOROETHYLENE)  
5U DIBROMOCHLOROMETHANE  
5U 1,1,2-TRICHLOROETHANE  
5U BENZENE  
5U TRANS-1,3-DICHLOROPROPENE  
5U 2-CHLOROETHYL VINYL ETHER  
5U BROMOFORM  
10U METHYL ISOBUTYL KETONE  
10U METHYL BUTYL KETONE  
5U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
5U 1,1,2,2-TETRACHLOROETHANE  
5U TOLUENE  
5U CHLOROBNZENE  
5U ETHYL BENZENE  
5U STYRENE  
5U TOTAL XYLENES

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30197 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-05 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L133  
\*\*\*

UG/L ANALYTICAL RESULTS

10UJ PHENOL  
10U BIS(2-CHLOROETHYL) ETHER  
10U 2-CHLOROPHENOL  
10U 1,3-DICHLOROBENZENE  
10U 1,4-DICHLOROBENZENE  
10U BENZYL ALCOHOL  
10U 1,2-DICHLOROBENZENE  
10U 2-METHYLPHENOL  
10U BIS(2-CHLOROISOPROPYL) ETHER  
10U (3-AND/OR 4-)METHYLPHENOL  
10U N-NITROSODI-N-PROPYLAMINE  
10U HEXACHLOROETHANE  
10U NITROBENZENE  
10U ISOPHORONE  
10U 2-NITROPHENOL  
10U 2,4-DIMETHYLPHENOL  
50UJ BENZOIC ACID  
10U BIS(2-CHLOROETHOXY) METHANE  
10U 2,4-DICHLOROPHENOL  
10U 1,2,4-TRICHLOROBENZENE  
10U NAPHTHALENE  
10U 4-CHLOROANILINE  
10U HEXACHLOROBUTADIENE  
10U 4-CHLORO-3-METHYLPHENOL  
10U 2-METHYLNAPHTHALENE  
10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
10U 2,4,6-TRICHLOROPHENOL  
50U 2,4,5-TRICHLOROPHENOL  
10U 2-CHLORONAPHTHALENE  
50U 2-NITROANILINE  
10U DIMETHYL PHTHALATE  
10U ACENAPHTHYLENE  
10U 2,6-DINITROTOLUENE

UG/L ANALYTICAL RESULTS

50U 3-NITROANILINE  
10U ACENAPHTHENE  
50U 2,4-DINITROPHENOL  
50UJ 4-NITROPHENOL  
10U DIBENZOFURAN  
10U 2,4-DINITROTOLUENE  
10U DIETHYL PHTHALATE  
10U 4-CHLOROPHENYL PHENYL ETHER  
10U FLUORENE  
50U 4-NITROANILINE  
50U 2-METHYL-4,6-DINITROPHENOL  
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
10U 4-BROMOPHENYL PHENYL ETHER  
10U HEXACHLOROBENZENE (HCB)  
50U PENTACHLOROPHENOL  
10U PHENANTHRENE  
10U ANTHRACENE  
10U DI-N-BUTYLPHTHALATE  
10U FLUORANTHENE  
10U PYRENE  
10U BENZYL BUTYL PHTHALATE  
20U 3,3'-DICHLOROBENZIDINE  
10U BENZO(A)ANTHRACENE  
10U CHRYSENE  
30U BIS(2-ETHYLHEXYL) PHTHALATE  
10U DI-N-OCTYLPHTHALATE  
10U BENZO(B AND/OR K)FLUORANTHENE  
10U BENZO-A-PYRENE  
10U INDENO (1,2,3-CD) PYRENE  
10U DIBENZO(A,H)ANTHRACENE  
10U BENZO(GH)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

```

** * * * * *
** PROJECT NO. 88-621   SAMPLE NO. 30197   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SW-05   COLLECTION START: 09/12/88   STOP: 00/00/00
** CASE NO.: 10400   SAS NO.:   D. NO.: L133   MD NO:
** * * * * *

```

RESULTS UNITS COMPOUND  
10JN UG/L HEXANEDIOIC ACID DIOCTYLESTER

RESULTS UNITS COMPOUND

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30197 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CASI-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-05 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\* CASE NUMBER: 10400 SAS NUMBER: D. NUMBER: L133  
\*\*

UG/L ANALYTICAL RESULTS

.05U ALPHA-BHC  
.05U BETA-BHC  
.05U DELTA-BHC  
.05U GAMMA-BHC (LINDANE)  
.05U HEPTACHLOR  
.05U ALDRIN  
.05U HEPTACHLOR EPOXIDE  
.05U ENDOSULFAN I (ALPHA)  
.1U DIELDRIN  
.1U 4,4'-DDE (P,P'-DDE)  
.1U ENDRIN  
.1U ENDOSULFAN II (BETA)  
.1U 4,4'-DDD (P,P'-DDD)  
.1U ENDOSULFAN SULFATE  
.1U 4,4'-DDT (P,P'-DDT)

UG/L ANALYTICAL RESULTS

.5U METHOXYCHLOR  
.1U ENDRIN KETONE  
-- CHLORDANE (TECH. MIXTURE) /1  
.5U GAMMA-CHLORDANE /2  
.5U ALPHA-CHLORDANE /2  
.1U TOXAPHENE  
.5U PCB-1016 (AROCLOR 1016)  
.5U PCB-1221 (AROCLOR 1221)  
.5U PCB-1232 (AROCLOR 1232)  
.5U PCB-1242 (AROCLOR 1242)  
.5U PCB-1248 (AROCLOR 1248)  
.1U PCB-1254 (AROCLOR 1254)  
.1U PCB-1260 (AROCLOR 1260)

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-OC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
\*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\* PROJECT NO. 88 621 SAMPLE NO. 30202 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-06 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L134  
\*\*\*

UG/L ANALYTICAL RESULTS

10UJ CHLOROMETHANE  
10U BROMOMETHANE  
10U VINYL CHLORIDE  
10U CHLOROETHANE  
20U METHYLENE CHLORIDE  
20UJ ACETONE  
5UJ CARBON DISULFIDE  
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
5U 1,1-DICHLOROETHANE  
5U 1,2-DICHLOROETHENE (TOTAL)  
5U CHLOROFORM  
5U 1,2-DICHLOROETHANE  
20UJ METHYL ETHYL KETONE  
5U 1,1,1-TRICHLOROETHANE  
5UJ CARBON TETRACHLORIDE  
10U VINYL ACETATE  
5U BROMODICHLOROMETHANE  
5U 1,2-DICHLOROPROPANE

UG/L ANALYTICAL RESULTS

5U CIS-1,3-DICHLOROPROPENE  
5U TRICHLOROETHENE(TRICHLOROETHYLENE)  
5U DIBROMOCHLOROMETHANE  
5U 1,1,2-TRICHLOROETHANE  
5U BENZENE  
5U TRANS-1,3-DICHLOROPROPENE  
2-CHLOROETHYL VINYL ETHER  
5U BROMOFORM  
10U METHYL ISOBUTYL KETONE  
10U METHYL BUTYL KETONE  
5U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
5U 1,1,2,2-TETRACHLOROETHANE  
8U TOLUENE  
5U CHLOROBENZENE  
5U ETHYL BENZENE  
5U STYRENE  
5U TOTAL XYLENES

NA

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\* PROJECT NO. 88 621 SAMPLE NO. 30202 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-06 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*

\*\*\* CASE NO.: 10400 SAS NO.: D. NO.: L134  
\*\*

UG/L ANALYTICAL RESULTS

10UJ PHENOL  
10U BIS(2-CHLOROETHYL) ETHER  
10U 2-CHLOROPHENOL  
10U 1,3-DICHLOROBENZENE  
10U 1,4-DICHLOROBENZENE  
10U BENZYL ALCOHOL  
10U 1,2-DICHLOROBENZENE  
10U 2-METHYLPHENOL  
10U BIS(2-CHLOROISOPROPYL) ETHER  
10U (3-AND/OR 4-)METHYLPHENOL  
10U N-NITROSODI-N-PROPYLAMINE  
10U HEXACHLOROETHANE  
10U NITROBENZENE  
10U ISOPHORONE  
10U 2-NITROPHENOL  
10U 2,4-DIMETHYLPHENOL  
50UJ BENZOIC ACID  
10U BIS(2-CHLOROETHOXY) METHANE  
10U 2,4-DICHLOROPHENOL  
10U 1,2,4-TRICHLOROBENZENE  
10U NAPHTHALENE  
10U 4-CHLOROANILINE  
10U HEXACHLOROBUTADIENE  
10U 4-CHLORO-3-METHYLPHENOL  
10U 2-METHYLNAPHTHALENE  
10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
10U 2,4,6-TRICHLOROPHENOL  
50U 2,4,5-TRICHLOROPHENOL  
10U 2-CHLORONAPHTHALENE  
50U 2-NITROANILINE  
10U DIMETHYL PHTHALATE  
10U ACENAPHTHYLENE  
10U 2,6-DINITROTOLUENE

UG/L ANALYTICAL RESULTS

50U 3-NITROANILINE  
10U ACENAPHTHENE  
50U 2,4-DINITROPHENOL  
50UJ 4-NITROPHENOL  
10U DIBENZOFURAN  
10U 2,4-DINITROTOLUENE  
10U DIETHYL PHTHALATE  
10U 4-CHLOROPHENYL PHENYL ETHER  
10U FLUORENE  
50U 4-NITROANILINE  
50U 2-METHYL-4,6-DINITROPHENOL  
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
10U 4-BROMOPHENYL PHENYL ETHER  
10U HEXACHLOROBENZENE (HCB)  
50U PENTACHLOROPHENOL  
10U PHENANTHRENE  
10U ANTHRACENE  
10U DI-N-BUTYLPHTHALATE  
10U FLUORANTHENE  
10U PYRENE  
10U BENZYL BUTYL PHTHALATE  
20U 3,3'-DICHLOROBENZIDINE  
10U BENZO(A)ANTHRACENE  
10U CHRYSENE  
30U BIS(2-ETHYLHEXYL) PHTHALATE  
10U DI-N-OCTYLPHTHALATE  
10U BENZO(B AND/OR K)FLUORANTHENE  
10U BENZO-A-PYRENE  
10U INDENO (1,2,3-CD) PYRENE  
10U DIBENZO(A,H)ANTHRACENE  
10U BENZO(GHI)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.



SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT  
10/14/88

PROJECT NO. 88-621 SAMPLE NO. 30202  
SOURCE: CAST-CRETE CORPORATI  
STATION ID: SW-06  
CASE NO.: 10400  
SAS NO.:

PROG. ELEM. NSF  
CITY: TAMPA  
COLLECTION START: 09/12/88  
D. NO.: L134  
ST: FL  
MD NO.:  
STOP: 00/00/00

RESULTS UNITS COMPOUND  
10UN UG/L HEXANEDIOIC ACID, DIOCTYL ESTER  
RESULTS UNITS COMPOUND

\*\*\*FOOTNOTES\*\*\*

- \*A-AVERAGE VALUE
- \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN
- \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
- \*R-OC INDICATES THAT DATA UNSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.
- \*NA-NOT ANALYZED
- \*AI-INTERFERENCES
- \*J-ESTIMATED VALUE
- \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

```

***
** PROJECT NO. 88-621   SAMPLE NO. 30202   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SW-06   COLLECTION START: 09/12/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L134
**
***

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UG/I ANALYTICAL RESULTS

```

.05U ALPHA-BHC
.05U BETA-BHC
.05U DELTA-BHC
.05U GAMMA-BHC (LINDANE)
.05U HEPTACHLOR
.05U ALDRIN
.05U HEPTACHLOR EPOXIDE
.05U ENDOSULFAN I (ALPHA)
.1U DIELDRIN
.1U 4,4'-DDE (P,P'-DDE)
.1U ENDRIN
.1U ENDOSULFAN II (BETA)
.1U 4,4'-DDD (P,P'-DDD)
.1U ENDOSULFAN SULFATE
.1U 4,4'-DDT (P,P'-DDT)

```

UG/L ANALYTICAL RESULTS

```

.5U METHOXYCHLOR
.1U ENDRIN KETONE
-- CHLORDANE (TECH. MIXTURE) /1
.5U GAMMA-CHLORDANE /2
.5U ALPHA-CHLORDANE /2
.1U TOXAPHENE
.5U PCB-1016 (AROCOR 1016)
.5U PCB-1221 (AROCOR 1221)
.5U PCB-1232 (AROCOR 1232)
.5U PCB-1242 (AROCOR 1242)
.5U PCB-1248 (AROCOR 1248)
.1U PCB-1254 (AROCOR 1254)
.1U PCB-1260 (AROCOR 1260)

```

\*\*\*FOOTNOTES\*\*\*

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*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.
*C-CONFIRMED BY GCMS   1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

```

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

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*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30210   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-01   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L131   **
** ** ** **
```

```
RESULTS   UNITS   PARAMETER
0.56U     MG/KG   CYANIDE
```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

```
***
** PROJECT NO. 88-621   SAMPLE NO. 30222  SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-02   COLLECTION START: 09/13/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L137   **
**
***
```

```
RESULTS  UNITS  PARAMETER
0.56U    MG/KG  CYANIDE
```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

```
***
** PROJECT NO. 88-621   SAMPLE NO. 30223   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SD-03   COLLECTION START: 09/13/88   STOP: 00/00/00
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L194
**
***
```

RESULTS UNITS PARAMETER  
0.66U MG/KG CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

```
***
** PROJECT NO. 88-621   SAMPLE NO. 30221   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-03   COLLECTION START: 09/13/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: 1193   **
**
```

```
***
RESULTS   UNITS   PARAMETER
0.72U     MG/KG   CYANIDE
```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621      SAMPLE NO. 30220      SAMPLE TYPE. GROUNDWA      PROG ELEM: NSP      COLLECTED BY: A SPAUGH      \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI      CITY: TAMPA      ST: FL      \*\*  
\*\* STATION ID: MW-01      COLLECTION START: 09/12/88      STOP. 00/00/00      \*\*  
\*\* CASE NO.: 10400      SAS NO.:      MD NO. L129      \*\*  
\*\*  
\*\*\*

RESULTS      UNITS      PARAMETER  
0.010J      MG/L      CYANIDE

*OK*

\*\*\*FOOTNOTES\*\*\*

- \*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
- \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
- \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621    SAMPLE NO. 30212    SAMPLE TYPE: SURFACEWA    PROG ELEM: NSF    COLLECTED BY: A SPAUGH    \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL    \*\*  
\*\* STATION ID: SW-05    COLLECTION START: 09/12/88    STOP: 00/00/00    \*\*  
\*\* CASE NO.: 10400    SAS NO.:    D. NO.:    MD NO: L133    \*\*  
\*\*  
\*\*\*

RESULTS    UNITS    PARAMETER  
0.010J    MG/L    CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.



SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

```
***
** PROJECT NO. 88-621   SAMPLE NO. 30217   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SW-06   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L134   **
**
***
```

RESULTS UNITS PARAMETER  
0.010J MG/L CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621      SAMPLE NO. 30209      SAMPLE TYPE: SURFACEWA      PROG ELEM: NSF      COLLECTED BY: A SPAUGH      \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI      CITY: TAMPA      ST: FL      \*\*  
\*\* STATION ID: TB-01      COLLECTION START: 09/12/88      STOP: 00/00/00      \*\*  
\*\* CASE NO.: 10400      SAS NO.:      D. NO.:      MD NO: L128      \*\*  
\*\*  
\*\*\*

RESULTS      UNITS      PARAMETER  
0.010J      MG/L      CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30219   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SW-04   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: 1130   **
**
***

```

RESULTS UNITS PARAMETER  
0.01UJ MG/L CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621    SAMPLE NO. 30211    SAMPLE TYPE: GROUNDWA    PROG ELEM: NSF    COLLECTED BY: A SPAUGH    \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL    \*\*  
\*\* STATION ID: PW-01    COLLECTION START: 09/12/88    STOP: 00/00/00    \*\*  
\*\* CASE NO.: 10400    SAS NO.:    D. NO.:    MD NO: L192    \*\*  
\*\*  
\*\*\*

RESULTS    UNITS    PARAMETER  
0.010J    MG/L    CYANIDE

*OK*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30218   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-04   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   M1 NO: 1135   **
**
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RESULTS   UNITS   PARAMETER
1.10      MG/KG   CYANIDE
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\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\* PROJECT NO. 88-621 SAMPLE NO. 30194 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: TB-01 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L128  
\*\*\* UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

10UJ PHENOL  
10U BIS(2-CHLOROETHYL) ETHER  
10U 2-CHLOROPHENOL  
10U 1,3-DICHLOROBENZENE  
10U 1,4-DICHLOROBENZENE  
10U BENZYL ALCOHOL  
10U 1,2-DICHLOROBENZENE  
10U 2-METHYLPHENOL  
10U BIS(2-CHLOROISOPROPYL) ETHER  
10U (3-AND/OR 4-)METHYLPHENOL  
10U N-NITROSODI-N-PROPYLAMINE  
10U HEXACHLOROETHANE  
10U NITROBENZENE  
10U ISOPHURONE  
10U 2-NITROPHENOL  
10U 2,4-DIMETHYLPHENOL  
50UJ BENZOIC ACID  
10U BIS(2-CHLOROETHOXY) METHANE  
10U 2,4-DICHLOROPHENOL  
10U 1,2,4-TRICHLOROBENZENE  
10U NAPHTHALENE  
10U 4-CHLOROANILINE  
10U HEXACHLOROBUTADIENE  
10U 4-CHLORO-3-METHYLPHENOL  
10U 2-METHYLNAPHTHALENE  
10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
10U 2,4,6-TRICHLOROPHENOL  
50U 2,4,5-TRICHLOROPHENOL  
10U 2-CHLORONAPHTHALENE  
50U 2-NITROANILINE  
10U DIMETHYL PHTHALATE  
10U ACENAPHTHYLENE  
10U 2,6-DINITROTOLUENE

50U 3-NITROANILINE  
10U ACENAPHTHENE  
50U 2,4-DINITROPHENOL  
50UJ 4-NITROPHENOL  
10U DIBENZOFURAN  
10U 2,4-DINITROTOLUENE  
10U DIETHYL PHTHALATE  
10U 4-CHLOROPHENYL PHENYL ETHER  
10U FLUORENE  
50U 4-NITROANILINE  
50U 2-METHYL-4,6-DINITROPHENOL  
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
10U 4-BROMOPHENYL PHENYL ETHER  
10U HEXACHLOROBENZENE (HCB)  
50U PENTACHLOROPHENOL  
10U PHENANTHRENE  
10U ANTHRACENE  
10U DI-N-BUTYLPHTHALATE  
10U FLUORANTHENE  
10U PYRENE  
10U BENZYL BUTYL PHTHALATE  
20U 3,3'-DICHLOROBENZIDINE  
10U BENZO(A)ANTHRACENE  
10U CHRYSENE  
20U BIS(2-ETHYLHEXYL) PHTHALATE  
10U DI-N-OCTYLPHTHALATE  
10U BENZO(B AND/OR K)FLUORANTHENE  
10U BENZO-A-PYRENE  
10U INDENO (1,2,3-CD) PYRENE  
10U DIBENZO(A,H)ANTHRACENE  
10U BENZO(GH)PERYLENE

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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*** * * * *
** PROJECT NO. 88 621   SAMPLE NO. 30194   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: TB-01   COLLECTION START: 09/12/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L128
** * * *

```

UG/I ANALYTICAL RESULTS

```

.05U ALPHA-BHC
.05U BETA-BHC
.05U DELTA-BHC
.05U GAMMA-BHC (LINDANE)
.05U HEPTACHLOR
.05U ALDRIN
.05U HEPTACHLOR EPOXIDE
.05U ENDOSULFAN I (ALPHA)
.1U DIELDRIN
.1U 4,4'-DDE (P,P'-DDE)
.1U ENDRIN
.1U ENDOSULFAN II (BETA)
.1U 4,4'-DDD (P,P'-DDD)
.1U ENDOSULFAN SULFATE
.1U 4,4'-DDT (P,P'-DDT)

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UG/L ANALYTICAL RESULTS

```

.5U METHOXYCHLOR
.1U ENDRIN KETONE
-- CHLORDANE (TECH. MIXTURE) /1
.5U GAMMA-CHLORDANE /2
.5U ALPHA-CHLORDANE /2
.1U TOXAPHENE
.5U PCB-1016 (AROCLOR 1016)
.5U PCB-1221 (AROCLOR 1221)
.5U PCB-1232 (AROCLOR 1232)
.5U PCB-1242 (AROCLOR 1242)
.5U PCB-1248 (AROCLOR 1248)
.1U PCB-1254 (AROCLOR 1254)
.1U PCB-1260 (AROCLOR 1260)

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\*\*\*FOOTNOTES\*\*\*

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*C-CONFIRMED BY GCMS
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

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***
** PROJECT NO. 88 621   SAMPLE NO. 30194   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: TB-01   COLLECTION START: 09/12/88   STOP: 00/00/00   **
**
** CASE NO.: 10400   SAS NO.:   D. NO.: L128   **
***
  
```

UG/L ANALYTICAL RESULTS

```

10UJ CHLOROMETHANE
10U BROMOMETHANE
10U VINYL CHLORIDE
10U CHLOROETHANE
9U METHYLENE CHLORIDE
10UJ ACETONE
5UJ CARBON DISULFIDE
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U 1,1-DICHLOROETHANE
5U 1,2-DICHLOROETHENE (TOTAL)
5U CHLOROFORM
5U 1,2-DICHLOROETHANE
20UJ METHYL ETHYL KETONE
5U 1,1,1-TRICHLOROETHANE
5UJ CARBON TETRACHLORIDE
10U VINYL ACETATE
5U BROMODICHLOROMETHANE
5U 1,2-DICHLOROPROPANE
  
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UG/L ANALYTICAL RESULTS

```

5U CIS-1,3-DICHLOROPROPENE
5U TRICHLOROETHENE(TRICHLOROETHYLENE)
5U DIBROMOCHLOROMETHANE
5U 1,1,2-TRICHLOROETHANE
5U BENZENE
5U TRANS-1,3-DICHLOROPROPENE
NA 2-CHLOROETHYL VINYL ETHER
5U BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
5U TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U 1,1,2,2-TETRACHLOROETHANE
5U TOLUENE
5U CHLOROBENZENE
5U ETHYL BENZENE
5U STYRENE
5U TOTAL XYLENES
  
```

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

```

***
** PROJECT NO. 88-621   SAMPLE NO. 30209   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: TB-01   COLLECTION START: 09/12/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   MD NUMBER: L128
**

```

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***
UG/L
100UJ ALUMINUM
20U ANTIMONY
7UJ ARSENIC
30U BARIUM
1U RFRYLLIUM
2U CADMIUM
30U CALCIUM
3U CHROMIUM
6U COBALT
9U COPPER
50U IRON
10J LEAD
35 MAGNESIUM

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ANALYTICAL RESULTS

```

***
UG/L
10J MANGANESE
0.2U MERCURY
9U NICKEL
460U POTASSIUM
20J SELENIUM
5U SILVER
640U SODIUM
30J THALLIUM
NA TIN
5U VANADIUM
9U ZINC

```

ANALYTICAL RESULTS

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621      SAMPLE NO. 30210      SAMPLE TYPE: SOIL      PROG ELEM: NSF      COLLECTED BY: A SPAUGH      \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI      CITY: TAMPA      ST: FL      \*\*  
\*\* STATION ID: SS-01      COLLECTION START: 09/12/88      STOP: 00/00/00      \*\*  
\*\* CASE NUMBER: 10400      SAS NUMBER:      MD NUMBER: L131      \*\*  
\*\*

MG/KG      ANALYTICAL RESULTS

4400      ALUMINUM  
8U      ANTIMONY  
1.6UJ      ARSENIC  
30U      BARIUM  
0.13U      BERYLLIUM  
0.36U      CADMIUM  
1800      CALCIUM  
20U      CHROMIUM  
1.2U      COBALT  
7.8      COPPER  
1700      IRON  
40U      LEAD  
210      MAGNESIUM

MG/KG      ANALYTICAL RESULTS

44      MANGANESE  
0.11U      MERCURY  
7U      NICKEL  
140      POTASSIUM  
10J      SELENIUM  
1U      SILVER  
80U      SODIUM  
0.52UJ      THALLIUM  
NA      TIN  
6U      VANADIUM  
33      ZINC  
11      PERCENT MOISTURE

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

```

***
** PROJECT NO. 88-621   SAMPLE NO. 30222   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SS-02   COLLECTION START: 09/13/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   MD NUMBER: L137
**

```

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
4200	ALUMINUM	380	MANGANESE
2.90	ANTIMONY	0.110	MERCURY
7.8J	ARSENIC	700	NICKEL
500	BARIUM	500	POTASSIUM
10	BERYLLIUM	0.270J	SELENIUM
10	CADMIUM	10	SILVER
200000	CALCIUM	1900	SODIUM
67	CHROMIUM	0.510J	THALLIUM
8.1	COBALT	NA	TIN
56	COPPER	25	VANADIUM
54000	IRON	240	ZINC
500	LEAD	10	PERCENT MOISTURE
1700	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

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 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621      SAMPLE NO. 30223      SAMPLE TYPE: SOIL      PROG ELEM: NSF      COLLECTED BY: A SPAUGH      \*\*  
\*\* SOURCE: CASI-CRETE CORPORATI      CITY: TAMPA      ST: FL      \*\*  
\*\* STATION ID: SD-03      COLLECTION START: 09/13/88      STOP: 00/00/00      \*\*  
\*\* CASE NUMBER: 10400      SAS NUMBER.      MD NUMBER: L194      \*\*  
\*\*

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
16000	ALUMINUM	12	MANGANESE
3.5U	ANTIMONY	0.13U	MERCURY
1.8UJ	ARSENIC	20U	NICKEL
65	BARIUM	420	POTASSIUM
1U	BERYLLIUM	0.32UJ	SELENIUM
0.42U	CADMIUM	1.2U	SILVER
16000	CALCIUM	1/0U	SODIUM
22	CHROMIUM	0.61UJ	THALLIUM
1.4U	COBALT	NA	TIN
2.3U	COPPER	20U	VANADIUM
3500	IRON	5.3	ZINC
6U	LEAD	24	PERCENT MOISTURE
660	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621      SAMPLE NO. 30221      SAMPLE TYPE: SOIL      PROG ELEM: NSF      COLLECTED BY: A SPAUGH      \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI      CITY: TAMPA      ST: FL      \*\*  
\*\* STATION ID: SS-03      COLLECTION START: 09/13/88      STOP: 00/00/00      \*\*  
\*\* CASE NUMBER: 10400      SAS NUMBER.      MD NUMBER: L193      \*\*  
\*\*  
\*\*

MG/KG      ANALYTICAL RESULTS		MG/KG      ANALYTICAL RESULTS	
7900	ALUMINUM	80	MANGANESE
8.8U	ANTIMONY	0.14U	MERCURY
10J	ARSENIC	30U	NICKEL
63	BARIUM	480	POTASSIUM
2U	BERYLLIUM	0.34UJ	SELENIUM
0.46U	CADMIUM	1.3U	SILVER
210000	CALCIUM	320U	SODIUM
32	CHROMIUM	0.66UJ	THALLIUM
7	COBALT	NA	TIN
17	COPPER	42	VANADIUM
9600	IRON	81	ZINC
18	LEAD	30	PERCENT MOISTURE
2200	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

- \*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
- \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
- \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
- \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

```

***
** PROJECT NO. 88-621   SAMPLE NO. 30218   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CASI-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SS-04   COLLECTION START: 09/12/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   MD NUMBER: L135
**

```

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***
MG/KG   ANALYTICAL RESULTS
8700    ALUMINUM
6U      ANTIMONY
14J     ARSENIC
50U     BARIUM
3U      BERYLLIUM
0.74U   CADMIUM
150000  CALCIUM
19      CHROMIUM
6.6     COBALT
16      COPPER
9700    IRON
100     LEAD
2500    MAGNESIUM

```

```

***
MG/KG   ANALYTICAL RESULTS
74      MANGANESE
0.23U   MERCURY
20U     NICKEL
680     POTASSIUM
10J     SELENIUM
2.1U    SILVER
580U    SODIUM
1.10J   THALLIUM
NA      TIN
41      VANADIUM
47      ZINC
56      PERCENT MOISTURE

```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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10/18/88

## METALS DATA REPORT

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** PROJECT NO. 88-621    SAMPLE NO. 30220  SAMPLE TYPE: GROUNDWA  PROG ELEM: NSF    COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI  CITY: TAMPA    ST: FL
** STATION ID: MW-01    COLLECTION START: 09/12/88    STOP: (X)/(X)/00
** CASE NUMBER: 10400    SAS NUMBER:    MD NUMBER: L129

```

## ANALYTICAL RESULTS

50VJ	ALUMINUM
40U	ANTIMONY
7UJ	ARSENIC
30U	BARIUM
1U	BERYLLIUM
2U	CADMIUM
60000	CALCIUM
3U	CHROMIUM
6U	COBALT
9U	COPPER
50U	IRON
3UJ	LEAD
3700	MAGNESIUM

## UG/L

1UJ	MANGANESE
0.2U	MERCURY
9U	NICKEL
610	POTASSIUM
5UJ	SELENIUM
5U	SILVER
8200U	SODIUM
3UJ	THALLIUM
NA	TIN
50U	VANADIUM
9U	ZINC

## ANALYTICAL RESULTS

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621    SAMPLE NO. 30211    SAMPLE TYPE: GROUNDWA    PROG ELEM: NSF    COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL  
\*\* STATION ID: PW-01    COLLECTION START: 09/12/88    STOP: 00/00/00  
\*\* CASE NUMBER: 10400    SAS NUMBER:    MD NUMBER: L132  
\*\*

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
160UJ	ALUMINUM	20UJ	MANGANESE
20U	ANTIMONY	0.2U	MERCURY
70UJ	ARSENIC	9U	NICKEL
30U	BARIUM	460U	POTASSIUM
1U	BERYLLIUM	20UJ	SELENIUM
3U	CADMIUM	5U	SILVER
4000	CALCIUM	10000U	SODIUM
3U	CHROMIUM	30UJ	THALLIUM
6U	COBALT	NA	TIN
19	COPPER	5U	VANADIUM
40U	IRON	39	ZINC
20UJ	LEAD		
1300	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30219   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SW-04   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NUMBER: 10400   SAS NUMBER:   MD NUMBER: L130   **
**

```

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
2700J	ALUMINUM	50J	MANGANESE
30J	ANTIMONY	0.20	MERCURY
70J	ARSENIC	200	NICKEL
300	BARIUM	1200	POTASSIUM
10	BERYLLIUM	20J	SELENIUM
20	CADMIUM	50	SILVER
5200	CALCIUM	8900	SODIUM
30	CHROMIUM	30J	THALLIUM
60	COBALT	NA	TIN
90	COPPER	50	VANADIUM
1000	IRON	13	ZINC
30J	LEAD		
730	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621    SAMPLE NO. 30212    SAMPLE TYPE: SURFACEWA    PROG ELEM: NSF    COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL  
\*\* STATION ID: SW-05    COLLECTION START: 09/12/88    STOP: 00/00/00  
\*\* CASE NUMBER: 10400    SAS NUMBER:    MD NUMBER: L133  
\*\*

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
710UJ	ALUMINUM	30J	MANGANESE
20UJ	ANTIMONY	0.2U	MERCURY
70J	ARSENIC	9U	NICKEL
30U	BARIUM	34000	POTASSIUM
1U	BERYLLIUM	20J	SELENIUM
4U	CADMIUM	5U	SILVER
21000	CALCIUM	7100U	SODIUM
7U	CHROMIUM	30J	THALLIUM
6U	COBALT	NA	TIN
10	COPPER	9U	VANADIUM
420	IRON	12	ZINC
50J	LEAD		
220	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

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***
** PROJECT NO. 88-621   SAMPLE NO. 30217   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL
** STATION ID: SW-06   COLLECTION START: 09/12/88   STOP: 00/00/00
** CASE NUMBER: 10400   SAS NUMBER:   MD NUMBER: L134
**

```

UG/L		ANALYTICAL RESULTS	UG/L		ANALYTICAL RESULTS
1700J	ALUMINUM		10J	MANGANESE	
20U	ANTIMONY		0.2U	MERCURY	
70J	ARSENIC		20U	NICKEL	
160U	BARIUM		86000	POTASSIUM	
1U	BERYLLIUM		50J	SELENIUM	
3U	CADMIUM		5U	SILVER	
180000	CALCIUM		1100000	SODIUM	
60U	CHROMIUM		30J	THALLIUM	
6U	COBALT		NA	TIN	
18	COPPER		5U	VANADIUM	
180U	IRON		9U	ZINC	
30J	LEAD				
230	MAGNESIUM				

\*\*\*FOOTNOTES\*\*\*

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- \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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**OVERSIZED**

**DOCUMENT**

—  
MAP

## HAZARD RANKING SYSTEM SCORING SUMMARY

FOR

EAST CRETE CORPORATION  
EPA SITE NUMBER FLD004427562  
TAMPA  
HILLSBOROUGH COUNTY, FL  
EPA REGION: 4

SCORE STATUS: IN PREPARATION

SCORED BY K. HANKINSON  
OF NUS CORPORATION  
ON 04/05/88

DATE OF THIS REPORT: 05/24/89  
DATE OF LAST MODIFICATION: 05/24/89

GROUND WATER ROUTE SCORE : 29.18  
SURFACE WATER ROUTE SCORE: 0.00  
AIR ROUTE SCORE : 0.00  
-----  
MIGRATION SCORE : 16.87

**P.O.I.A.**  
**EXEMPTION 5**

D. Kay Jell  
Approving Official

6/4/91  
Date

## HRS GROUND WATER ROUTE SCORE

CATEGORY/FACTOR	RAW DATA	ASN. VALUE	SCORE
1. OBSERVED RELEASE	NO	0	0
2. ROUTE CHARACTERISTICS			
DEPTH TO WATER TABLE	55 FEET		
DEPTH TO BOTTOM OF WASTE	2 FEET		
DEPTH TO AQUIFER OF CONCERN	53 FEET	2	4
PRECIPITATION	56.0 INCHES		
EVAPORATION	50.0 INCHES		
NET PRECIPITATION	6.0 INCHES	2	2
PERMEABILITY	$1.0 \times 10^{-4}$ CM/SEC	2	2
PHYSICAL STATE		3	3
TOTAL ROUTE CHARACTERISTICS SCORE:			11
3. CONTAINMENT		3	3
4. WASTE CHARACTERISTICS			
TOXICITY/PERSISTENCE: ASSIGNED VALUE, 12			12
WASTE QUANTITY CUBIC YDS	1		
DRUMS	0		
GALLONS	0		
TONS	0		
TOTAL	1 CU. YDS	1	1
TOTAL WASTE CHARACTERISTICS SCORE:			13
5. TARGETS			
GROUND WATER USE		3	9
DISTANCE TO NEAREST WELL	200 FEET		
AND	MATRIX VALUE	30	30
TOTAL POPULATION SERVED	1140 PERSONS		
NUMBER OF HOUSES	300		
NUMBER OF PERSONS	0		
NUMBER OF CONNECTIONS	0		
NUMBER OF IRRIGATED ACRES	0		
TOTAL TARGETS SCORE:			29

GROUND WATER ROUTE SCORE (Eqn) = 29.13

## HRS SURFACE WATER ROUTE SCORE

CATEGORY/FACTOR	RAW DATA	ASN. VALUE	SCORE
1. OBSERVED RELEASE	ROUTE NOT SCORED		N/A
2. ROUTE CHARACTERISTICS			
SITE LOCATED IN SURFACE WATER			
SITE WITHIN CLOSED BASIN			
FACILITY SLOPE			
INTERVENING SLOPE			
24-HOUR RAINFALL			
DISTANCE TO DOWN-SLOPE WATER			
PHYSICAL STATE			
TOTAL ROUTE CHARACTERISTICS SCORE:			N/A
3. CONTAINMENT			N/A
4. WASTE CHARACTERISTICS			
TOXICITY/PERSISTENCE:			
WASTE QUANTITY	CUBIC YDS		
	DRUMS		
	GALLONS		
	TONS		
	TOTAL		
TOTAL WASTE CHARACTERISTICS SCORE:			N/A
5. TARGETS			
SURFACE WATER USE			
DISTANCE TO SENSITIVE ENVIRONMENT			
COASTAL WETLANDS			
FRESH-WATER WETLANDS			
CRITICAL HABITAT			
DISTANCE TO STATIC WATER			
DISTANCE TO WATER SUPPLY INTAKE			
AND	MATRIX VALUE		
TOTAL POPULATION SERVED			
NUMBER OF HOUSES			
NUMBER OF PERSONS			
NUMBER OF CONNECTIONS			
NUMBER OF IRRIGATED ACRES			
TOTAL TARGETS SCORE:			

SURFACE WATER ROUTE SCORE (Sew) = 0.00

HRS AIR ROUTE SCORE

<u>CATEGORY/FACTOR</u>	<u>RAW DATA</u>	<u>ASN. VALUE</u>	<u>SCORE</u>
1. OBSERVED RELEASE	NO	0	0
2. WASTE CHARACTERISTICS			
REACTIVITY:			
INCOMPATIBILITY		MATRIX VALUE	
TOXICITY			
WASTE QUANTITY	CUBIC YARDS		
	DRUMS		
	GALLONS		
	TONS		
	TOTAL		
TOTAL WASTE CHARACTERISTICS SCORE:			N/A
3. TARGETS			
POPULATION WITHIN 4-MILE RADIUS			
0 to 0.25 mile			
0 to 0.50 mile			
0 to 1.0 mile			
0 to 4.0 miles			
DISTANCE TO SENSITIVE ENVIRONMENTS			
COASTAL WETLANDS			
FRESH-WATER WETLANDS			
CRITICAL HABITAT			
DISTANCE TO LAND USES			
COMMERCIAL/INDUSTRIAL			
PARK/FOREST/RESIDENTIAL			
AGRICULTURAL LAND			
PRIME FARMLAND			
HISTORIC SITE WITHIN VIEW?			
TOTAL TARGETS SCORE:			N/A

AIR ROUTE SCORE (Sa) = 0.00



HAZARD RANKING SYSTEM SCORING CALCULATIONS  
FOR  
SITE: EAST CRETE CORPORATION  
AS OF 05/24/89

PAGE 3

GROUND WATER ROUTE SCORE

ROUTE CHARACTERISTICS 11  
CONTAINMENT X 0  
WASTE CHARACTERISTICS X 19  
TARGETS X 05

$$= \frac{12731}{57,600} \times 100 = 22.1 = S_{gw}$$

SURFACE WATER ROUTE SCORE

ROUTE CHARACTERISTICS 0  
CONTAINMENT X 0  
WASTE CHARACTERISTICS X 0  
TARGETS X 0

$$= \frac{0}{64,350} \times 100 = 0.00 = S_{sw}$$

AIR ROUTE SCORE

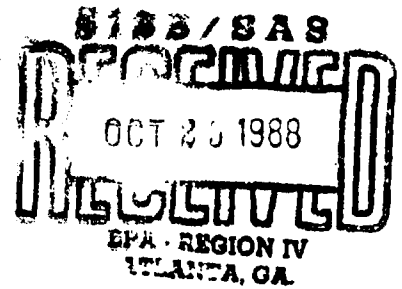
$$\text{OBSERVED RELEASE} \quad 0 / 35,100 \times 100 = 0.00 = S_{air}$$

SUMMARY OF MIGRATION SCORE CALCULATIONS

	$S$	$S^2$
GROUND WATER ROUTE SCORE ( $S_{gw}$ )	22.18	491.97
SURFACE WATER ROUTE SCORE ( $S_{sw}$ )	0.00	0.00
AIR ROUTE SCORE ( $S_{air}$ )	0.00	0.00
$S^2_{gw} + S^2_{sw} + S^2_{air}$		491.97
$\sqrt{S^2_{gw} + S^2_{sw} + S^2_{air}}$		22.18
$R_H = \sqrt{S^2_{gw} + S^2_{sw} + S^2_{air}} / 1.73$		12.8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV  
COLLEGE STATION RD.  
ATHENS, GA. 30613



\*\*\*\*\*MEMORANDUM\*\*\*\*\*

DATE: 10/19/88

SUBJECT: Results of Metals Analysis;  
88-621 CAST-CRETE CORPORATI  
TAMPA FL  
CASE NO: 10400

FLD004427662

FROM: Robert W. Knight  
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

cc: al Hinkle

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30209 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: TB-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L128 \*\*  
\*\* \*\*

\*\*\* \*\*  
\*\* UG/I ANALYTICAL RESULTS \*\*  
100UJ ALUMINUM  
20U ANTIMONY  
7UJ ARSENIC  
30U BARIUM  
1U BERYLLIUM  
2U CADMIUM  
30U CALCIUM  
3U CHROMIUM  
6U COBALT  
9U COPPER  
50U IRON  
1UJ LEAD  
35 MAGNESIUM

\*\*\* \*\*  
\*\* UG/L ANALYTICAL RESULTS \*\*  
1UJ MANGANESE  
0.2U MERCURY  
9U NICKEL  
460U POTASSIUM  
20U SELENIUM  
5U SILVER  
690U SODIUM  
30U THALLIUM  
NA TIN  
5U VANADIUM  
9U ZINC

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30210 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L131 \*\*  
\*\* \*\*

MG/KG ANALYTICAL RESULTS  
4400 ALUMINUM  
8U ANTIMONY  
1.60U ARSENIC  
30U BARIUM  
0.13U BERYLLIUM  
0.36U CADMIUM  
1800 CALCIUM  
20U CHROMIUM  
1.2U COBALT  
7.8 COPPER  
1700 IRON  
40U LEAD  
210 MAGNESIUM

MG/KG ANALYTICAL RESULTS  
44 MANGANESE  
0.11U MERCURY  
7U NICKEL  
140 POTASSIUM  
10U SELENIUM  
1U SILVER  
80U SODIUM  
0.52U THALLIUM  
NA TIN  
6U VANADIUM  
33 ZINC  
11 PERCENT MOISTURE

\*\*\*FOOTNOTES\*\*\*

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\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30211 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: PW-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L132 \*\*  
\*\* \*\*

UG/L ANALYTICAL RESULTS		UG/L ANALYTICAL RESULTS	
1600J	ALUMINUM	200J	MANGANESE
200J	ANTIMONY	0.20	MERCURY
70J	ARSENIC	90	NICKEL
300J	BARIUM	4600	POTASSIUM
10	BERYLLIUM	20J	SELENIUM
30	CADMIUM	50	SILVER
4800	CALCIUM	80000	SODIUM
30	CHROMIUM	30J	THALLIUM
60	COBALT	NA	TIN
19	COPPER	50	VANADIUM
400	IRON	39	ZINC
20J	LEAD		
1300	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30212 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-05 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L133  
\*\*

UG/L ANALYTICAL RESULTS		UG/L ANALYTICAL RESULTS	
7100J	ALUMINUM	30J	MANGANESE
20U	ANTIMONY	0.2U	MERCURY
70J	ARSENIC	9U	NICKEL
30U	BARIUM	34000	POTASSIUM
1U	BERYLLIUM	20J	SELENIUM
4U	CADMIUM	5U	SILVER
21000	CALCIUM	7100U	SODIUM
7U	CHROMIUM	30J	THALLIUM
6U	COBALT	NA	TIN
10	COPPER	9U	VANADIUM
420	IRON	12	ZINC
50J	LEAD		
220	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

```

*** **
** PROJECT NO. 88-621   SAMPLE NO. 30217   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SW-06   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NUMBER: 10400   SAS NUMBER:   MD NUMBER: L134   **
**

```

```

*** * * * *
UG/L
2700J ALUMINUM
20U ANTIMONY
70U ARSENIC
160U BARIUM
1U BERYLLIUM
3U CADMIUM
180000 CALCIUM
60U CHROMIUM
6U COBALT
18 COPPER
180U IRON
30U LEAD
230 MAGNESIUM

```

ANALYTICAL RESULTS

```

*** * * * *
UG/L
1U MANGANESE
0.2U MERCURY
20U NICKEL
86000 POTASSIUM
50U SELENIUM
5U SILVER
1100000 SODIUM
30U THALLIUM
NA TIN
5U VANADIUM
9U ZINC

```

ANALYTICAL RESULTS

\*\*\*FOOTNOTES\*\*\*

```

*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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```

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30218 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-04 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L135 \*\*  
\*\* \*\*

MG/KG  
8700 ALUMINUM  
6U ANTIMONY  
14J ARSENIC  
50U BARIUM  
3U BERYLLIUM  
0.74U CADMIUM  
150000 CALCIUM  
19 CHROMIUM  
6.6 COBALT  
16 COPPER  
9700 IRON  
10U LEAD  
2500 MAGNESIUM

ANALYTICAL RESULTS

MG/KG  
74 MANGANESE  
0.23U MERCURY  
20U NICKEL  
680 POTASSIUM  
10J SELENIUM  
2.1U SILVER  
580U SODIUM  
1.10J THALLIUM  
NA TIN  
41 VANADIUM  
47 ZINC  
56 PERCENT MOISTURE

ANALYTICAL RESULTS

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30219 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SW-04 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L130 \*\*  
\*\* \*\*

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
270UJ	ALUMINUM	5UJ	MANGANESE
30U	ANTIMONY	0 2U	MERCURY
7UJ	ARSENIC	20U	NICKEL
30U	BARIUM	1200	POTASSIUM
1U	BERYLLIUM	2UJ	SELENIUM
2U	CADMIUM	5U	SILVER
5200	CALCIUM	890U	SODIUM
3U	CHROMIUM	3UJ	THALLIUM
6U	COBALT	NA	TIN
9U	COPPER	5U	VANADIUM
100U	IRON	13	ZINC
3UJ	LEAD		
730	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30220 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: MW-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L129 \*\*  
\*\* \*\*

UG/L ANALYTICAL RESULTS		UG/L ANALYTICAL RESULTS	
50UJ	ALUMINUM	1UJ	MANGANESE
40U	ANTIMONY	0.2U	MERCURY
7UJ	ARSENIC	9U	NICKEL
30U	BARIUM	610	POTASSIUM
1U	BERYLLIUM	50U	SELENIUM
2U	CADMIUM	5U	SILVER
60000	CALCIUM	8200U	SODIUM
3U	CHROMIUM	30U	THALLIUM
6U	COBALT	NA	TIN
9U	COPPER	50U	VANADIUM
50U	IRON	9U	ZINC
3UJ	LEAD		
3700	MAGNESIUM		

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30221 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-03 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L193 \*\*  
\*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\*

MG/KG  
7900 ALUMINUM  
3.8U ANTIMONY  
10J ARSENIC  
63 BARIUM  
2U BERYLLIUM  
0.46U CADMIUM  
210000 CALCIUM  
32 CHROMIUM  
7 COBALT  
17 COPPER  
9600 IRON  
18 LEAD  
2200 MAGNESIUM

ANALYTICAL RESULTS

MG/KG  
80 MANGANESE  
0.14U MERCURY  
30U NICKEL  
480 POTASSIUM  
0.34UJ SELENIUM  
1.3U SILVER  
320U SODIUM  
0.66UJ THALLIUM  
NA TIN  
42 VANADIUM  
81 ZINC  
30 PERCENT MOISTURE

ANALYTICAL RESULTS

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30222 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-02 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L137 \*\*  
\*\*

\*\*\* \*\*  
MG/KG  
4200 ALUMINUM  
2.90 ANTIMONY  
7.8J ARSENIC  
50U BARIUM  
1U BERYLLIUM  
1U CADMIUM  
200000 CALCIUM  
67 CHROMIUM  
8.1 COBALT  
56 COPPER  
54000 IRON  
50U LEAD  
1700 MAGNESIUM

ANALYTICAL RESULTS

\*\*\* \*\*  
MG/KG  
380 MANGANESE  
0.11U MERCURY  
70U NICKEL  
500 POTASSIUM  
0.27UJ SELENIUM  
1U SILVER  
190U SODIUM  
0.51UJ THALLIUM  
NA TIN  
25 VANADIUM  
240 ZINC  
10 PERCENT MOISTURE

ANALYTICAL RESULTS

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

METALS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30223 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SD-03 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: MD NUMBER: L194 \*\*  
\*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\* \*\*

MG/KG  
16000 ALUMINUM  
3.5U ANTIMONY  
1.60U ARSENIC  
65 BARIUM  
1U BERYLLIUM  
0.42U CADMIUM  
16000 CALCIUM  
22 CHROMIUM  
1.4U COBALT  
2.3U COPPER  
3500 IRON  
6U LEAD  
660 MAGNESIUM

ANALYTICAL RESULTS

MG/KG  
12 MANGANESE  
0.13U MERCURY  
20U NICKEL  
420 POTASSIUM  
0.32UJ SELENIUM  
1.2U SILVER  
1700 SODIUM  
0.61UJ THALLIUM  
NA TIN  
20U VANADIUM  
5.3 ZINC  
24 PERCENT MOISTURE

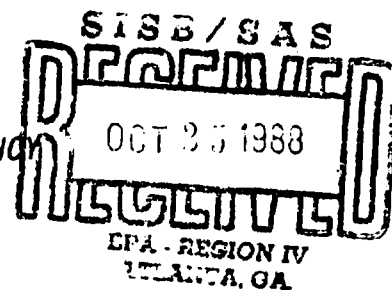
ANALYTICAL RESULTS

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV  
COLLEGE STATION RD.  
ATHENS, GA. 30613



\*\*\*\*\*MEMORANDUM\*\*\*\*\*

DATE: 10/19/88

SUBJECT: Results of Cyanide Analysis;  
88-621 CAST-CRETE CORPORATI  
TAMPA FL  
CASE NO: 10400

FROM: Robert W. Knight  
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

10/18/88

```

*****
** PROJECT NO. 88-621      SAMPLE NO. 30209  SAMPLE TYPE: SURFACEWA  PROG ELEM: NSF    COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI  CITY: TAMPA      ST: FL
** STATION ID: TB-01      COLLECTION START: 09/12/88  STOP: 00/00/00
** CASE NO.: 10400      SAS NO.:      D. NO.:      MD NO: L128
**
*****

```

RESULTS	UNITS	PARAMETER
0.010J	MG/L	CYANIDE

\*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

```
*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30210  SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-01   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L131   **
** ** ** **
```

RESULTS UNITS PARAMETER  
0.56U MG/KG CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.



10/18/88

```

*****
** PROJECT NO. 88-621      SAMPLE NO. 30211  SAMPLE TYPE: GROUNDWA  PROG ELEM: NSF      COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI  CITY: TAMPA      ST: FL
** STATION ID: PW-01      COLLECTION START: 09/12/88      STOP: 00/00/00
** CASE NO.: 10400      SAS NO.:      D. NO.:      MD NO: L132
**
*****

```

\*\*\*FOOTNOTES\*\*\*

\*\*\*NOTES\*\*\*  
 \*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

\*\*\* \*\* \*\* \*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30212 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SW-05 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: MD NO: L133 \*\*  
\*\* \*\* \*\* \*\*

RESULTS UNITS PARAMETER  
0.010J MG/L CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

10/18/88

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*****
** PROJECT NO. 88-621 SAMPLE NO. 30217 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH **
** SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL **
** STATION ID: SW-06 COLLECTION START: 09/12/88 STOP: 00/00/00 **
** CASE NO.: 10400 SAS NO.: D. NO.: MD NO: L134 **
**
*****

```

RESULTS	UNITS	PARAMETER
0.01UJ	MG/L	CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*\*\*NOTES\*\*\*  
 \*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

```
***
** PROJECT NO. 88-621   SAMPLE NO. 30218   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-04   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L135   **
**
***
```

```
RESULTS  UNITS  PARAMETER
1.10     MG/KG  CYANIDE
```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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10/18/88

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*****
** PROJECT NO. 88-621      SAMPLE NO. 30219  SAMPLE TYPE. SURFACEWA  PROG ELEM: NSF   COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI  CITY: TAMPA      ST: FL
** STATION ID: SW-04      COLLECTION START: 09/12/88  STOP: 00/00/00
** CASE NO.: 10400      SAS NO.:      D. NO.:      Mn NO: L130
**
*****

```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

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*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30220   SAMPLE TYPE: GROUNDWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: MW-01   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L129   **
** ** ** **
```

```
RESULTS  UNITS  PARAMETER
0.010UJ  MG/L   CYANIDE
```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

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*** ** ** ** **
**  PROJECT NO. 88-621   SAMPLE NO. 30221  SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
**  SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
**  STATION ID: SS-03   COLLECTION START: 09/13/88   STOP: 00/00/00   **
**  CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L193   **
**  *** ** ** ** **
```

RESULTS UNITS PARAMETER  
0.72U MG/KG CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

10/18/88

```

*****
** PROJECT NO. 88-621 SAMPLE NO. 30222 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL
** STATION ID: 55-02 COLLECTION START: 09/13/88 STOP: 00/00/00
** CASE NO.: 10400 SAS NO.: D. NO.: MD NO: L137
**
*****

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\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/18/88

SPECIFIED ANALYSIS DATA REPORT

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*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30223   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SD-03   COLLECTION START: 09/13/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.:   MD NO: L194   **
** ** ** **
```

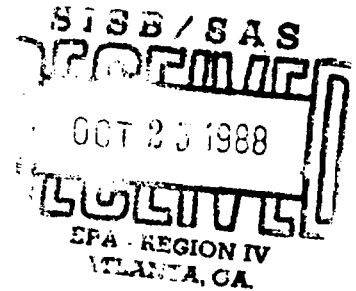
RESULTS UNITS PARAMETER  
0.66U MG/KG CYANIDE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRFSENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV  
COLLEGE STATION RD.  
ATHENS, GA. 30613



\*\*\*\*\*MEMORANDUM\*\*\*\*\*

DATE: 10/15/88

SUBJECT: Results of Purgeable Organic Analysis;  
88-621 CAST-CRETE CORPORATI  
TAMPA FL  
CASE NO: 10400

FROM: Robert W. Knight  
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

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*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30194   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: TB-01   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.: L128   **
*** ** ** ** *
UG/i   ANALYTICAL RESULTS   UG/L   ANALYTICAL RESULTS
  
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10UJ CHLOROMETHANE
10U  BROMOMETHANE
10U  VINYL CHLORIDE
10U  CHLOROETHANE
9U   METHYLENE CHLORIDE
10UJ ACETONE
5UJ  CARBON DISULFIDE
5UJ  1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U   1,1-DICHLOROETHANE
5U   1,2-DICHLOROETHENE (TOTAL)
5U   CHLOROFORM
5U   1,2-DICHLOROETHANE
20UJ METHYL ETHYL KETONE
5U   1,1,1-TRICHLOROETHANE
5UJ  CARBON TETRACHLORIDE
10U  VINYL ACETATE
5U   BROMODICHLOROMETHANE
5U   1,2-DICHLOROPROPANE
  
```

NA

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5U  CIS-1,3-DICHLOROPROPENE
5U  TRICHLOROETHENE(TRICHLOROETHYLENE)
5U  DIBROMOCHLOROMETHANE
5U  1,1,2-TRICHLOROETHANE
5U  BENZENE
5U  TRANS-1,3-DICHLOROPROPENE
5U  2-CHLOROETHYL VINYL ETHER
5U  BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
5U  TETRACHLOROETHENE(TETRACHLOROETHYLENE)
5U  1,1,2,2-TETRACHLOROETHANE
5U  TOLUENE
5U  CHLOROBENZENE
5U  ETHYL BENZENE
5U  STYRENE
5U  TOTAL XYLENES
  
```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30195 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L131 \*\*  
\*\*\* \*\*  
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

11U CHLOROMETHANE  
11U BROMOMETHANE  
11U VINYL CHLORIDE  
11U CHLOROETHANE  
40U METHYLENE CHLORIDE  
30U ACETONE  
6U CARBON DISULFIDE  
6U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
6U 1,1-DICHLOROETHANE  
6U 1,2-DICHLOROETHENE (TOTAL)  
6U CHLOROFORM  
6U 1,2-DICHLOROETHANE  
30UJ METHYL ETHYL KETONE  
6U 1,1,1-TRICHLOROETHANE  
6U CARBON TETRACHLORIDE  
11U VINYL ACETATE  
6U BROMODICHLOROMETHANE  
6U 1,2-DICHLOROPROPANE

6U CIS-1,3-DICHLOROPROPENE  
6U TRICHLOROETHENE(TRICHLOROETHYLENE)  
6U DIBROMOCHLOROMETHANE  
6U 1,1,2-TRICHLOROETHANE  
6U BENZENE  
6U TRANS-1,3-DICHLOROPROPENE  
NA 2-CHLOROETHYL VINYL ETHER  
6U BROMOFORM  
11U METHYL ISOBUTYL KETONE  
11U METHYL BUTYL KETONE  
6U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
6U 1,1,2,2-TETRACHLOROETHANE  
6U TOLUENE  
6U CHLOROBENZENE  
6U ETHYL BENZENE  
6U STYRENE  
6U TOTAL XYLENES  
11 PERCENT MOISTURE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

10/14/88

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** ** * PROJECT NO. 88-621      SAMPLE NO. 30196   SAMPLE TYPE: GROUNDWA   PROG ELEM: NSF    COLLECTED BY: A SPAUGH          **  
** SOURCE: CAST-CRETE CORPORATI CITY: TAMPA             ST: FL                               **  
** STATION ID: PW-01           COLLECTION START: 09/12/88        STOP: 00/00/00              **
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**      CASE NO.: 10400                      SAS NO.:                      D. NO.: L132                      **
***      * * * * *                          * * * * *                      * * * * *                      * * * * *
06/71      ANALYTICAL RESULTS                      UG/L                      ANALYTICAL RESULTS

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10UJ CHLOROMETHANE
10U  BROMOMETHANE
10U  VINYL CHLORIDE
10U  CHLOROETHANE
5U   METHYLENE CHLORIDE
10UJ ACETONE
5UJ  CARBON DISULFIDE
5UJ  1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
5U   1,1-DICHLOROETHANE
5U   1,2-DICHLOROETHENE (TOTAL)
1J   CHLOROFORM
5U   1,2-DICHLOROETHANE
20UJ METHYL ETHYL KETONE
5U   1,1,1-TRICHLOROETHANE
5UJ  CARBON TETRACHLORIDE
10U  VINYL ACETATE
5U   BROMODICHLOROMETHANE
5U   1,2-DICHLOROPROPANE

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5U CIS-1,3-DICHLOROPROPENE
5U TRICHLOROETHENE (TRICHLOROETHYLENE)
5U DIBROMOCHLOROMETHANE
5U 1,1,2-TRICHLOROETHANE
5U BENZENE
5U TRANS-1,3-DICHLOROPROPENE
NA 2-CHLOROETHYL VINYL ETHER
5U BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
5U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
5U 1,1,2,2-TETRACHLOROETHANE
5U TOLUENE
5U CHLOROBENZENE
5U ETHYL BENZENE
5U STYRENE
5U TOTAL XYLENES

```

\*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\* \*\* \*\* \*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30197 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SW-05 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L133 \*\*  
\*\*\* \*\* \*\* \*\* \* \* \* \* \* \*\*  
UG/I ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

10UJ CHLOROMETHANE  
10U BROMOMETHANE  
10U VINYL CHLORIDE  
10U CHLOROETHANE  
8U METHYLENE CHLORIDE  
20UJ ACETONE  
5UJ CARBON DISULFIDE  
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
5U 1,1-DICHLOROETHANE  
5U 1,2-DICHLOROETHENE (TOTAL)  
5U CHLOROFORM  
5U 1,2-DICHLOROETHANE  
20UJ METHYL ETHYL KETONE  
5U 1,1,1-TRICHLOROETHANE  
5UJ CARBON TETRACHLORIDE  
10U VINYL ACETATE  
5U BROMODICHLOROMETHANE  
5U 1,2-DICHLOROPROPANE

NA

5U CIS-1,3-DICHLOROPROPENE  
5U TRICHLOROETHENE(TRICHLOROETHYLENE)  
5U DIBROMOCHLOROMETHANE  
5U 1,1,2-TRICHLOROETHANE  
5U BENZENE  
5U TRANS-1,3-DICHLOROPROPENE  
2-CHLOROETHYL VINYL ETHER  
5U BROMOFORM  
10U METHYL ISOBUTYL KETONE  
10U METHYL BUTYL KETONE  
5U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
5U 1,1,2,2-TETRACHLOROETHANE  
5U TOLUENE  
5U CHLOROBENZENE  
5U ETHYL BENZENE  
5U STYRENE  
5U TOTAL XYLENES

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30202 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SW-06 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L134 \*\*  
\*\*\* \*\* \*\* \*\* \* \* \* \* \* \*\* \*\* \*\* \*\*

UG/L ANALYTICAL RESULTS

10UJ CHLOROMETHANE  
10U BROMOMETHANE  
10U VINYL CHLORIDE  
10U CHLOROETHANE  
20U METHYLENE CHLORIDE  
20UJ ACETONE  
5UJ CARBON DISULFIDE  
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
5U 1,1-DICHLOROETHANE  
5U 1,2-DICHLOROETHENE (TOTAL)  
5U CHLOROFORM  
5U 1,2-DICHLOROETHANE  
20UJ METHYL ETHYL KETONE  
5U 1,1,1-TRICHLOROETHANE  
5UJ CARBON TETRACHLORIDE  
10U VINYL ACETATE  
5U BROMODICHLOROMETHANE  
5U 1,2-DICHLOROPROPANE

UG/L ANALYTICAL RESULTS

5U CIS-1,3-DICHLOROPROPENE  
5U TRICHLOROETHENE(TRICHLOROETHYLENE)  
5U DIBROMOCHLOROMETHANE  
5U 1,1,2-TRICHLOROETHANE  
5U BENZENE  
5U TRANS-1,3-DICHLOROPROPENE  
5U 2-CHLOROETHYL VINYL ETHER  
5U BROMOFORM  
10U METHYL ISOBUTYL KETONE  
10U METHYL BUTYL KETONE  
5U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
5U 1,1,2,2-TETRACHLOROETHANE  
8U TOLUENE  
5U CHLOROBENZENE  
5U ETHYL BENZENE  
5U STYRENE  
5U TOTAL XYLENES

NA

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

10/14/88

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*****
** PROJECT NO. 88-621      SAMPLE NO. 30203  SAMPLE TYPE: SOIL      PROG ELEM: NSF      COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI      CITY: TAMPA      ST: FL
** STATION ID: SS-04      COLLECTION START: 09/12/88      STOP: 00/00/00
**
** CASE NO.: 10400      SAS NO.:      D. NO.: L135
*****
0678.G      ANALYTICAL RESULTS      0678.G      ANALYTICAL RESULTS

```

	9U	CIS-1,3-DICHLOROPROPENE
	9U	TRICHLOROETHENE (TRICHLOROETHYLENE)
	9U	DIBROMOCHLOROMETHANE
	9U	1,1,2-TRICHLOROETHANE
	9U	BENZENE
NA	9U	TRANS-1,3-DICHLOROPROPENE
		2-CHLOROETHYL VINYL ETHER
	9U	BROMOFORM
	18U	METHYL ISOBUTYL KETONE
	18U	METHYL BUTYL KETONE
	9U	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
	9U	1,1,2,2-TETRACHLOROETHANE
	200U	TOLUENE
	9U	CHLOROBENZENE
	9U	ETHYL BENZENE
	9U	STYRENE
	9U	TOTAL XYLENES
	45	PERCENT MOISTURE

\*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.



SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30204 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL  
\*\* STATION ID: SW-04 COLLECTION START: 09/12/88 STOP: 00/00/00  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L130  
\*\*\*  
UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

10UJ CHLOROMETHANE  
10U BROMOMETHANE  
10U VINYL CHLORIDE  
10U CHLOROETHANE  
20U METHYLENE CHLORIDE  
10UJ ACETONE  
5UJ CARBON DISULFIDE  
5UJ 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
5U 1,1-DICHLOROETHANE  
5U 1,2-DICHLOROETHENE (TOTAL)  
5U CHLOROFORM  
5U 1,2-DICHLOROETHANE  
20UJ METHYL ETHYL KETONE  
5U 1,1,1-TRICHLOROETHANE  
5UJ CARBON TETRACHLORIDE  
10U VINYL ACETATE  
5U BROMODICHLOROMETHANE  
5U 1,2-DICHLOROPROPANE

NA

5U CIS-1,3-DICHLOROPROPENE  
5U TRICHLOROETHENE(TRICHLOROETHYLENE)  
5U DIBROMOCHLOROMETHANE  
5U 1,1,2-TRICHLOROETHANE  
5U BENZENE  
5U TRANS-1,3-DICHLOROPROPENE  
5U 2-CHLOROETHYL VINYL ETHER  
5U BROMOFORM  
10U METHYL ISOBUTYL KETONE  
10U METHYL BUTYL KETONE  
5U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
5U 1,1,2,2-TETRACHLOROETHANE  
5U TOLUENE  
5U CHLOROBENZENE  
5U ETHYL BENZENE  
5U STYRENE  
5U TOTAL XYLENES

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

10/14/88

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*****
** PROJECT NO. 88-621      SAMPLE NO. 30205   SAMPLE TYPE: GROUNDWA    PROG ELEM: NSF     COLLECTED BY: A SPAUGH    **
** SOURCE: CAST-CRETE CORPORATI          CITY: TAMPA              ST: FL                      **
** STATION ID: MW-01                COLLECTION START: 09/12/88        STOP: 00/00/00             **
**                                                                    **
** CASE NO.: 10400                  SAS NO.:                    D. NO.: L129                     **
*** * * * *                       * * * * *                       * * * * *                       * * * * *
UG/L      ANALYTICAL RESULTS           UG/L      ANALYTICAL RESULTS

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NA

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5U CIS-1,3-DICHLOROPROPENE
5U TRICHLOROETHENE (TRICHLOROETHYLENE)
5U DIBROMOCHLOROMETHANE
5U 1,1,2-TRICHLOROETHANE
5U BENZENE
5U TRANS-1,3-DICHLOROPROPENE
5U 2-CHLOROETHYL VINYL ETHER
5U BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
5U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
5U 1,1,2,2-TETRACHLOROFTHANE
6U TOLUENE
5U CHLOROBENZENE
5U ETHYL BENZENE
5U STYRENE
5U TOTAL XYLENES

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\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

10/14/88

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*****
** PROJECT NO. 88-621      SAMPLE NO. 30206   SAMPLE TYPE: SOIL          PROG ELEM: NSF    COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI                                CITY: TAMPA              ST: FL
** STATION ID: SS-03                                           COLLECTION START: 09/13/88   STOP: 00/00/00
**
** CASE NO.: 10400                      SAS NO.:                       D. NO.: L193
*****
UG/KG        ANALYTICAL RESULTS           UG/KG        ANALYTICAL RESULTS

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15U  CHLOROMETHANE
15U  BROMOMETHANE
15U  VINYL CHLORIDE
15U  CHLOROETHANE
50U  METHYLENE CHLORIDE
40U  ACETONE
7U   CARBON DISULFIDE
7U   1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
7U   1,1-DICHLOROETHANE
7U   1,2-DICHLOROETHENE (TOTAL)
7U   CHLOROFORM
7U   1,2-DICHLOROETHANE
30UJ METHYL ETHYL KETONE
7U   1,1,1-TRICHLOROETHANE
7U   CARBON TETRACHLORIDE
15U  VINYL ACETATE
7U   BROMODICHLOROMETHANE
7U   1,2-DICHLOROPROPANE

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	7U	CIS-1,3-DICHLOROPROPENE
	7U	TRICHLOROETHENE (TRICHLOROETHYLENE)
	7U	DIBROMOCHLOROMETHANE
	7U	1,1,2-TRICHLOROETHANE
	7U	BENZENE
	7U	TRANS-1,3-DICHLOROPROPENE
NA		2-CHLOROETHYL VINYL ETHER
	7U	BROMOFORM
	15U	METHYL ISOBUTYL KETONE
	15U	METHYL BUTYL KETONE
	7U	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
	7U	1,1,2,2-TETRACHLOROETHANE
30CU		TOLUENE
	7U	CHLOROBENZENE
	7U	ETHYL BENZENE
	7U	STYRENE
	7U	TOTAL XYLENES
	33	PERCENT MOISTURE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

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** PROJECT NO. 88-621 SAMPLE NO. 30207 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH **
** SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL **
** STATION ID: SS-02 COLLECTION START: 09/13/88 STOP: 00/00/00 **
** CASE NO.: 10400 SAS NO.: D. NO.: L137 **
*** * * * *
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS
  
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1500U CHLOROMETHANE
1500U BROMOMETHANE
1500U VINYL CHLORIDE
1500U CHLOROETHANE
7000UJ METHYLENE CHLORIDE
8000UJ ACETONE
730U CARBON DISULFIDE
730U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
730U 1,1-DICHLOROETHANE
730U 1,2-DICHLOROETHENE (TOTAL)
730U CHLOROFORM
730U 1,2-DICHLOROETHANE
20000UJ METHYL ETHYL KETONE
730U 1,1,1-TRICHLOROETHANE
730U CARBON TETRACHLORIDE
1500U VINYL ACETATE
730U BROMODICHLOROMETHANE
730U 1,2-DICHLOROPROPANE
  
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730U CIS-1,3-DICHLOROPROPENE
730U TRICHLOROETHENE(TRICHLOROETHYLENE)
730U DIBROMOCHLOROMETHANE
730U 1,1,2-TRICHLOROETHANE
730U BENZENE
730U TRANS-1,3-DICHLOROPROPENE
NA 2-CHLOROETHYL VINYL ETHER
730U BROMOFORM
1500U METHYL ISOBUTYL KETONE
1500U METHYL BUTYL KETONE
730U TETRACHLOROETHENE(TETRACHLOROETHYLENE)
730U 1,1,2,2-TETRACHLOROETHANE
5000U TOLUENE
730U CHLOROBENZENE
730U ETHYL BENZENE
730U STYRENE
730U TOTAL XYLENES
14 PERCENT MOISTURE
  
```

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PURGEABLE ORGANICS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30208 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SD-03 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L194 \*\*  
\*\*\* \*\*  
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

12U CHLOROMETHANE  
12U BROMOMETHANE  
12U VINYL CHLORIDE  
12U CHLOROETHANE  
40U METHYLENE CHLORIDE  
60U ACETONE  
6U CARBON DISULFIDE  
6U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)  
6U 1,1-DICHLOROETHANE  
6U 1,2-DICHLOROETHENE (TOTAL)  
6U CHLOROFORM  
6U 1,2-DICHLOROETHANE  
30UJ METHYL ETHYL KETONE  
6U 1,1,1-TRICHLOROETHANE  
6U CARBON TETRACHLORIDE  
12U VINYL ACETATE  
6U BROMODICHLOROMETHANE  
6U 1,2-DICHLOROPROPANE

NA

6U CIS-1,3-DICHLOROPROPENE  
6U TRICHLOROETHENE(TRICHLOROETHYLENE)  
6U DIBROMOCHLOROMETHANE  
6U 1,1,2-TRICHLOROETHANE  
6U BENZENE  
6U TRANS-1,3-DICHLOROPROPENE  
2-CHLOROETHYL VINYL ETHER  
6U BROMOFORM  
12U METHYL ISOBUTYL KETONE  
12U METHYL BUTYL KETONE  
6U TETRACHLOROETHENE(TETRACHLOROETHYLENE)  
6U 1,1,2,2-TETRACHLOROETHANE  
80U TOLUENE  
6U CHLOROBENZENE  
6U ETHYL BENZENE  
6U STYRENE  
6U TOTAL XYLENES  
20 PERCENT MOISTURE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

\*\*\* \*\* \*\* \*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30203 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-04 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L135 MD NO: \*\*  
\*\* \*\* \*\* \*\*  
\*\*\* \*\* \*\* \*\*\*\*\*

RESULTS UNITS COMPOUND  
40JN UG/KG PROPENE

RESULTS UNITS COMPOUND  
20J UG/KG 1 UNIDENTIFIED COMPOUND

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

10/14/88

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** PROJECT NO. 88-621 SAMPLE NO. 30206 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH **
** SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL **
** STATION ID: SS-03 COLLECTION START: 09/13/88 STOP: 00/00/00 **
** CASE NO.: 10400 SAS NO.: D. NO.: L193 MD NO: **
**
*****

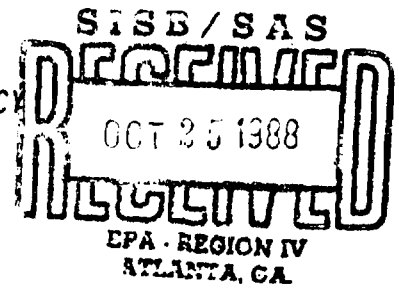
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RESULTS	UNITS	COMPOUND
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\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV  
COLLEGE STATION RD.  
ATHENS, GA. 30613



\*\*\*\*\*MEMORANDUM\*\*\*\*\*

DATE: 10/15/88

SUBJECT: Results of Extractable Organic Analysis;  
88-621 CAST-CRETE CORPORATI  
TAMPA FL  
CASE NO: 10400

FROM: Robert W. Knight  
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

CC: *al Horke*



SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\* \*\* \*\* \*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30194 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: TB-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L128 \*\*  
\*\*\* \*\* \*\* \*\* \* UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS \*\*\*

10UJ PHENOL  
10U BIS(2-CHLOROETHYL) ETHER  
10U 2-CHLOROPHENOL  
10U 1,3-DICHLOROBENZENE  
10U 1,4-DICHLOROBENZENE  
10U BENZYL ALCOHOL  
10U 1,2-DICHLOROBENZENE  
10U 2-METHYLPHENOL  
10U BIS(2-CHLOROISOPROPYL) ETHER  
10U (3-AND/OR 4-)METHYLPHENOL  
10U N-NITROSODI-N-PROPYLAMINE  
10U HEXACHLOROETHANE  
10U NITROBENZENE  
10U ISOPHORONE  
10U 2-NITROPHENOL  
10U 2,4-DIMETHYLPHENOL  
50UJ BENZOIC ACID  
10U BIS(2-CHLOROETHOXY) METHANE  
10U 2,4-DICHLOROPHENOL  
10U 1,2,4-TRICHLOROBENZENE  
10U NAPHTHALENE  
10U 4-CHLOROANILINE  
10U HEXACHLOROBUTADIENE  
10U 4-CHLORO-3-METHYLPHENOL  
10U 2-METHYLNAPHTHALENE  
10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
10U 2,4,6-TRICHLOROPHENOL  
50U 2,4,5-TRICHLOROPHENOL  
10U 2-CHLORONAPHTHALENE  
50U 2-NITROANILINE  
10U DIMETHYL PHTHALATE  
10U ACENAPHTHYLENE  
10U 2,6-DINITROTOLUENE

50U 3-NITROANILINE  
10U ACENAPHTHENE  
50U 2,4-DINITROPHENOL  
50UJ 4-NITROPHENOL  
10U DIBENZOFURAN  
10U 2,4-DINITROTOLUENE  
10U DIETHYL PHTHALATE  
10U 4-CHLOROPHENYL PHENYL ETHER  
10U FLUORENE  
50U 4-NITROANILINE  
50U 2-METHYL-4,6-DINITROPHENOL  
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
10U 4-BROMOPHENYL PHENYL ETHER  
10U HEXACHLOROBENZENE (HCB)  
50U PENTACHLOROPHENOL  
10U PHENANTHRENE  
10U ANTHRACENE  
10U DI-N-BUTYLPHTHALATE  
10U FLUORANTHENE  
10U PYRENE  
10U BENZYL BUTYL PHTHALATE  
20U 3,3'-DICHLOROBENZIDINE  
10U BENZO(A)ANTHRACENE  
10U CHRYSENE  
20U BIS(2-ETHYLHEXYL) PHTHALATE  
10U DI-N-OCTYLPHTHALATE  
10U BENZO(B AND/OR K)FLUORANTHENE  
10U BENZO-A-PYRENE  
10U INDENO (1,2,3-CD) PYRENE  
10U DIBENZO(A,H)ANTHRACENE  
10U BENZO(GH)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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*** **
** PROJECT NO. 88-621 SAMPLE NO. 30195 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH **
** SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL **
** STATION ID: SS-01 COLLECTION START: 09/12/88 STOP: 00/00/00 **
**
** CASE NO.: 10400 SAS NO.: D. NO.: L131 **
*** **
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS
  
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370UJ PHENOL
370UJ BIS(2-CHLOROETHYL) ETHER
370UJ 2-CHLOROPHENOL
370UJ 1,3-DICHLOROBENZENE
370UJ 1,4-DICHLOROBENZENE
370UJ BENZYL ALCOHOL
370UJ 1,2-DICHLOROBENZENE
370UJ 2-METHYLPHENOL
370UJ BIS(2-CHLOROISOPROPYL) ETHER
370UJ (3-AND/OR 4-)METHYLPHENOL
370UJ N-NITROSODI-N-PROPYLAMINE
370UJ HEXACHLOROETHANE
370UJ NITROBENZENE
370UJ ISOPHORONE
370UJ 2-NITROPHENOL
370UJ 2,4-DIMETHYLPHENOL
1900UJ BENZOIC ACID
370UJ BIS(2-CHLOROETHOXY) METHANE
370UJ 2,4-DICHLOROPHENOL
370UJ 1,2,4-TRICHLOROBENZENE
370UJ NAPHTHALENE
370UJ 4-CHLOROANILINE
370UJ HEXACHLOROBTADIENE
370UJ 4-CHLORO-3-METHYLPHENOL
370UJ 2-METHYLNAPHTHALENE
370UJ HEXACHLOROCYCLOPENTADIENE (HCCP)
370UJ 2,4,6-TRICHLOROPHENOL
1900UJ 2,4,5-TRICHLOROPHENOL
370UJ 2-CHLORONAPHTHALENE
1900UJ 2-NITROANILINE
370UJ DIMETHYL PHTHALATE
370UJ ACENAPHTHYLENE
370UJ 2,6-DINITROTOLUENE
  
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1900UJ 3-NITROANILINE
370UJ ACENAPHTHENE
1900UJ 2,4-DINITROPHENOL
1900UJ 4-NITROPHENOL
370UJ DIBENZOFURAN
370UJ 2,4-DINITROTOLUENE
370UJ DIETHYL PHTHALATE
370UJ 4-CHLOROPHENYL PHENYL ETHER
370UJ FLUORENE
1900UJ 4-NITROANILINE
1900UJ 2-METHYL-4,6-DINITROPHENOL
370UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
370UJ 4-BROMOPHENYL PHENYL ETHER
370UJ HEXACHLOROBENZENE (HCB)
1900UJ PENTACHLOROPHENOL
370UJ PHENANTHRENE
370UJ ANTHRACENE
370UJ DI-N-BUTYLPHTHALATE
370UJ FLUORANTHENE
370UJ PYRENE
370UJ BENZYL BUTYL PHTHALATE
750UJ 3,3'-DICHLOROBENZIDINE
370UJ BENZO(A)ANTHRACENE
370UJ CHRYSENE
370UJ BIS(2-ETHYLHEXYL) PHTHALATE
370UJ DI-N-OCTYLPHTHALATE
370UJ BENZO(B AND/OR K)FLUORANTHENE
370UJ BENZO-A-PYRENE
370UJ INDENO (1,2,3-CD) PYRENE
370UJ DIBENZO(A,H)ANTHRACENE
370UJ BENZO(GHI)PERYLENE
11 PERCENT MOISTURE
  
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\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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\*\* PROJECT NO. 88-621 SAMPLE NO. 30196 SAMPLE TYPE: GROUNDWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*

\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*

\*\* STATION ID: PW-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*

\*\* CASE NO.: 10400 SAS NO.: D. NO.: L132 \*\*

\*\*\* \*\*

UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

10UJ PHENOL

10U BIS(2-CHLOROETHYL) ETHER

10U 2-CHLOROPHENOL

10U 1,3-DICHLOROBENZENE

10U 1,4-DICHLOROBENZENE

10U BENZYL ALCOHOL

10U 1,2-DICHLOROBENZENE

10U 2-METHYLPHENOL

10U BIS(2-CHLOROISOPROPYL) ETHER

10U (3-AND/OR 4-)METHYLPHENOL

10U N-NITROSODI-N-PROPYLAMINE

10U HEXACHLOROETHANE

10U NITROBENZENE

10U ISOPHORONE

10U 2-NITROPHENOL

10U 2,4-DIMETHYLPHENOL

50UJ BENZOIC ACID

10U BIS(2-CHLOROETHOXY) METHANE

10U 2,4-DICHLOROPHENOL

10U 1,2,4-TRICHLOROBENZENE

10U NAPHTHALENE

10U 4-CHLOROANILINE

10U HEXACHLOROBUTADIENE

10U 4-CHLORO-3-METHYLPHENOL

10U 2-METHYLNAPHTHALENE

10U HEXACHLOROCYCLOPENTADIENE (HCCP)

10U 2,4,6-TRICHLOROPHENOL

50U 2,4,5-TRICHLOROPHENOL

10U 2-CHLORONAPHTHALENE

50U 2-NITROANILINE

10U DIMETHYL PHTHALATE

10U ACENAPHTHYLENE

10U 2,6-DINITROTOLUENE

50U 3-NITROANILINE

10U ACENAPHTHENE

50U 2,4-DINITROPHENOL

50UJ 4-NITROPHENOL

10U DIBENZOFURAN

10U 2,4-DINITROTOLUENE

10U DIETHYL PHTHALATE

10U 4-CHLOROPHENYL PHENYL ETHER

10U FLUORENE

50U 4-NITROANILINE

50U 2-METHYL-4,6-DINITROPHENOL

10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE

10U 4-BROMOPHENYL PHENYL ETHER

10U HEXACHLOROBENZENE (HCB)

50U PENTACHLOROPHENOL

10U PHENANTHRENE

10U ANTHRACENE

10U DI-N-BUTYLPHTHALATE

10U FLUORANTHENE

10U PYRENE

10U BENZYL BUTYL PHTHALATE

20U 3,3'-DICHLOROBENZIDINE

10U BENZO(A)ANTHRACENE

10U CHRYSENE

30U BIS(2-ETHYLHEXYL) PHTHALATE

10U DI-N-OCTYLPHTHALATE

10U BENZO(B AND/OR K)FLUORANTHENE

10U BENZO-A-PYRENE

10U INDENO (1,2,3-CD) PYRENE

10U DIBENZO(A,H)ANTHRACENE

10U BENZO(GHI)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\* \*\* \*\* \*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30197 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SW-05 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L133 \*\*  
\*\*\* \*\* \*\* \*\* \* \* \* \* \* \*\*  
UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

10UJ PHENOL  
10U BIS(2-CHLOROETHYL) ETHER  
10U 2-CHLOROPHENOL  
10U 1,3-DICHLOROBENZENE  
10U 1,4-DICHLOROBENZENE  
10U BENZYL ALCOHOL  
10U 1,2-DICHLOROBENZENE  
10U 2-METHYLPHENOL  
10U BIS(2-CHLOROISOPROPYL) ETHER  
10U (3-AND/OR 4-)METHYLPHENOL  
10U N-NITROSODI-N-PROPYLAMINE  
10U HEXACHLOROETHANE  
10U NITROBENZENE  
10U ISOPHORONE  
10U 2-NITROPHENOL  
10U 2,4-DIMETHYLPHENOL  
50UJ BENZOIC ACID  
10U BIS(2-CHLOROETHOXY) METHANE  
10U 2,4-DICHLOROPHENOL  
10U 1,2,4-TRICHLOROBENZENE  
10U NAPHTHALENE  
10U 4-CHLOROANILINE  
10U HEXACHLOROBTADIENE  
10U 4-CHLORO-3-METHYLPHENOL  
10U 2-METHYLNAPHTHALENE  
10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
10U 2,4,6-TRICHLOROPHENOL  
50U 2,4,5-TRICHLOROPHENOL  
10U 2-CHLORONAPHTHALENE  
50U 2-NITROANILINE  
10U DIMETHYL PHTHALATE  
10U ACENAPHTHYLENE  
10U 2,6-DINITROTOLUENE

50U 3-NITROANILINE  
10U ACENAPHTHENE  
50U 2,4-DINITROPHENOL  
50UJ 4-NITROPHENOL  
10U DIBENZOFURAN  
10U 2,4-DINITROTOLUENE  
10U DIETHYL PHTHALATE  
10U 4-CHLOROPHENYL PHENYL ETHER  
10U FLUORENE  
50U 4-NITROANILINE  
50U 2-METHYL-4,6-DINITROPHENOL  
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
10U 4-BROMOPHENYL PHENYL ETHER  
10U HEXACHLOROBENZENE (HCB)  
50U PENTACHLOROPHENOL  
10U PHENANTHRENE  
10U ANTHRACENE  
10U DI-N-BUTYLPHTHALATE  
10U FLUORANTHENE  
10U PYRENE  
10U BENZYL BUTYL PHTHALATE  
20U 3,3'-DICHLOROBENZIDINE  
10U BENZO(A)ANTHRACENE  
10U CHRYSENE  
30U BIS(2-ETHYLHEXYL) PHTHALATE  
10U DI-N-OCTYLPHTHALATE  
10U BENZO(B AND/OR K)FLUORANTHENE  
10U BENZO-A-PYRENE  
10U INDENO (1,2,3-CD) PYRENE  
10U DIBENZO(A,H)ANTHRACENE  
10U BENZO(GH)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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*** **
** PROJECT NO. 88-621   SAMPLE NO. 30202   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SW-06   COLLECTION START: 09/12/88   STOP: 00/00/00   **
**
** CASE NO.: 10400   SAS NO.:   D. NO.: L134   **
*** **
UG/L   ANALYTICAL RESULTS   UG/L   ANALYTICAL RESULTS

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10UJ PHENOL  
 10U BIS(2-CHLOROETHYL) ETHER  
 10U 2-CHLOROPHENOL  
 10U 1,3-DICHLOROBENZENE  
 10U 1,4-DICHLOROBENZENE  
 10U BENZYL ALCOHOL  
 10U 1,2-DICHLOROBENZENE  
 10U 2-METHYLPHENOL  
 10U BIS(2-CHLOROISOPROPYL) ETHER  
 10U (3-AND/OR 4-)METHYLPHENOL  
 10U N-NITROSODI-N-PROPYLAMINE  
 10U HEXACHLOROETHANE  
 10U NITROBENZENE  
 10U ISOPHORONE  
 10U 2-NITROPHENOL  
 10U 2,4-DIMETHYLPHENOL  
 50UJ BENZOIC ACID  
 10U BIS(2-CHLOROETHOXY) METHANE  
 10U 2,4-DICHLOROPHENOL  
 10U 1,2,4-TRICHLOROBENZENE  
 10U NAPHTHALENE  
 10U 4-CHLOROANILINE  
 10U HEXACHLOROBUTADIENE  
 10U 4-CHLORO-3-METHYLPHENOL  
 10U 2-METHYLNAPHTHALENE  
 10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
 10U 2,4,6-TRICHLOROPHENOL  
 50U 2,4,5-TRICHLOROPHENOL  
 10U 2-CHLORONAPHTHALENE  
 50U 2-NITROANILINE  
 10U DIMETHYL PHTHALATE  
 10U ACENAPHTHYLENE  
 10U 2,6-DINITROTOLUENE

50U 3-NITROANILINE  
 10U ACENAPHTHENE  
 50U 2,4-DINITROPHENOL  
 50UJ 4-NITROPHENOL  
 10U DIBENZOFURAN  
 10U 2,4-DINITROTOLUENE  
 10U DIETHYL PHTHALATE  
 10U 4-CHLOROPHENYL PHENYL ETHER  
 10U FLUORENE  
 50U 4-NITROANILINE  
 50U 2-METHYL-4,6-DINITROPHENOL  
 10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
 10U 4-BROMOPHENYL PHENYL ETHER  
 10U HEXACHLOROBENZENE (HCB)  
 50U PENTACHLOROPHENOL  
 10U PHENANTHRENE  
 10U ANTHRACENE  
 10U DI-N-BUTYLPHTHALATE  
 10U FLUORANTHENE  
 10U PYRENE  
 10U BENZYL BUTYL PHTHALATE  
 20U 3,3'-DICHLOROBENZIDINE  
 10U BENZO(A)ANTHRACENE  
 10U CHRYSENE  
 30U BIS(2-ETHYLHEXYL) PHTHALATE  
 10U DI-N-OCTYLPHTHALATE  
 10U BENZO(B AND/OR K)FLUORANTHENE  
 10U BENZO-A-PYRENE  
 10U INDENO (1,2,3-CD) PYRENE  
 10U DIBENZO(A,H)ANTHRACENE  
 10U BENZO(GH)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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\*\* PROJECT NO. 88-621 SAMPLE NO. 30203 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-04 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L135 \*\*  
\*\*\* \*\*  
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

600UJ PHENOL  
600UJ BIS(2-CHLOROETHYL) ETHER  
600UJ 2-CHLOROPHENOL  
600UJ 1,3-DICHLOROBENZENE  
600UJ 1,4-DICHLOROBENZENE  
600UJ BENZYL ALCOHOL  
600UJ 1,2-DICHLOROBENZENE  
600UJ 2-METHYLPHENOL  
600UJ BIS(2-CHLOROISOPROPYL) ETHER  
600UJ (3-AND/OR 4-)METHYLPHENOL  
600UJ N-NITROSODI-N-PROPYLAMINE  
600UJ HEXACHLOROETHANE  
600UJ NITROBENZENE  
600UJ ISOPHORONE  
600UJ 2-NITROPHENOL  
600UJ 2,4-DIMETHYLPHENOL  
3000UJ BENZOIC ACID  
600UJ BIS(2-CHLOROETHOXY) METHANE  
600UJ 2,4-DICHLOROPHENOL  
600UJ 1,2,4-TRICHLOROBENZENE  
600UJ NAPHTHALENE  
600UJ 4-CHLOROANILINE  
600UJ HEXACHLOROBUTADIENE  
600UJ 4-CHLORO-3-METHYLPHENOL  
600UJ 2-METHYLNAPHTHALENE  
600UJ HEXACHLOROCYCLOPENTADIENE (HCCP)  
600UJ 2,4,6-TRICHLOROPHENOL  
3000UJ 2,4,5-TRICHLOROPHENOL  
600UJ 2-CHLORONAPHTHALENE  
3000UJ 2-NITROANILINE  
600UJ DIMETHYL PHTHALATE  
600UJ ACENAPHTHYLENE  
600UJ 2,6-DINITROTOLUENE

3000UJ 3-NITROANILINE  
600UJ ACENAPHTHENE  
3000UJ 2,4-DINITROPHENOL  
3000UJ 4-NITROPHENOL  
600UJ DIBENZOFURAN  
600UJ 2,4-DINITROTOLUENE  
600UJ DIETHYL PHTHALATE  
600UJ 4-CHLOROPHENYL PHENYL ETHER  
600UJ FLUORENE  
3000UJ 4-NITROANILINE  
3000UJ 2-METHYL-4,6-DINITROPHENOL  
600UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
600UJ 4-BROMOPHENYL PHENYL ETHER  
600UJ HEXACHLOROBENZENE (HCB)  
3000UJ PENTACHLOROPHENOL  
600UJ PHENANTHRENE  
600UJ ANTHRACENE  
600UJ DI-N-BUTYLPHTHALATE  
600UJ FLUORANTHENE  
600UJ PYRENE  
600UJ BENZYL BUTYL PHTHALATE  
1200UJ 3,3'-DICHLOROBENZIDINE  
600UJ BENZO(A)ANTHRACENE  
600UJ CHRYSENE  
600UJ BIS(2-ETHYLHEXYL) PHTHALATE  
600UJ DI-N-OCTYLPHTHALATE  
600UJ BENZO(B AND/OR K)FLUORANTHENE  
600UJ BENZO-A-PYRENE  
600UJ INDENO (1,2,3-CD) PYRENE  
600UJ DIBENZO(A,H)ANTHRACENE  
600UJ BENZO(GHI)PERYLENE  
45 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*

EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\* \*\* \*\* \*\* \*\*  
\*\* PROJECT NO. 88-621    SAMPLE NO. 30204    SAMPLE TYPE: SURFACEWA    PROG ELEM: NSF    COLLECTED BY: A SPAUGH    \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL    \*\*  
\*\* STATION ID: SW-04    COLLECTION START: 09/12/88    STOP: 00/00/00    \*\*  
\*\*

\*\*\* CASE NO.: 10400    SAS NO.:    D. NO.: L130    \*\*

\*\*\* \* \* \* \* \* UG/L    ANALYTICAL RESULTS    UG/L    ANALYTICAL RESULTS    \* \* \* \* \*

10UJ PHENOL  
10U BIS(2-CHLOROETHYL) ETHER  
10U 2-CHLOROPHENOL  
10U 1,3-DICHLOROBENZENE  
10U 1,4-DICHLOROBENZENE  
10U BENZYL ALCOHOL  
10U 1,2-DICHLOROBENZENE  
10U 2-METHYLPHENOL  
10U BIS(2-CHLOROISOPROPYL) ETHER  
10U (3-AND/OR 4-)METHYLPHENOL  
10U N-NITROSODI-N-PROPYLAMINE  
10U HEXACHLOROETHANE  
10U NITROBENZENE  
10U ISOPHORONE  
10U 2-NITROPHENOL  
10U 2,4-DIMETHYLPHENOL  
50UJ BENZOIC ACID  
10U BIS(2-CHLOROETHOXY) METHANE  
10U 2,4-DICHLOROPHENOL  
10U 1,2,4-TRICHLOROBENZENE  
10U NAPHTHALENE  
10U 4-CHLOROANILINE  
10U HEXACHLOROBUTADIENE  
10U 4-CHLORO-3-METHYLPHENOL  
10U 2-METHYLNAPHTHALENE  
10U HEXACHLOROCYCLOPENTADIENE (HCCP)  
10U 2,4,6-TRICHLOROPHENOL  
50UJ 2,4,5-TRICHLOROPHENOL  
10U 2-CHLORONAPHTHALENE  
50U 2-NITROANILINE  
10U DIMETHYL PHTHALATE  
10U ACENAPHTHYLENE  
10U 2,6-DINITROTOLUENE

50U 3-NITROANILINE  
10U ACENAPHTHENE  
50UJ 2,4-DINITROPHENOL  
50U 4-NITROPHENOL  
10U DIBENZOFURAN  
10U 2,4-DINITROTOLUENE  
10U DIETHYL PHTHALATE  
10U 4-CHLOROPHENYL PHENYL ETHER  
10U FLUORENE  
50U 4-NITROANILINE  
50U 2-METHYL-4,6-DINITROPHENOL  
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
10U 4-BROMOPHENYL PHENYL ETHER  
10U HEXACHLOROBENZENE (HCB)  
50U PENTACHLOROPHENOL  
10U PHENANTHRENE  
10U ANTHRACENE  
10U DI-N-BUTYLPHTHALATE  
10U FLUORANTHENE  
10U PYRENE  
10U BENZYL BUTYL PHTHALATE  
20U 3,3'-DICHLOROBENZIDINE  
10U BENZO(A)ANTHRACENE  
10U CHRYSENE  
30U BIS(2-ETHYLHEXYL) PHTHALATE  
10U DI-N-OCTYLPHTHALATE  
10U BENZO(B AND/OR K)FLUORANTHENE  
10U BENZO-A-PYRENE  
10U INDENO (1,2,3-CD) PYRENE  
10U DIBENZO(A,H)ANTHRACENE  
10U BENZO(GH)PERYLENE

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
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10/14/88

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** PROJECT NO. 88-621    SAMPLE NO. 30205    SAMPLE TYPE: GROUNDWA    PROG ELEM: NSF    COLLECTED BY: A SPAUGH    **
** SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL    **
** STATION ID: MW-01    COLLECTION START: 09/12/88    STOP: 00/00/00    **

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** CASE NO.: 10400 SAS NO.: D. NO.: L129
*** UG/I ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

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10UJ PHENOL
10U BIS(2-CHLOROETHYL) ETHER
10U 2-CHLOROPHENOL
10U 1,3-DICHLOROBENZENE
10U 1,4-DICHLOROBENZENE
10U BENZYL ALCOHOL
10U 1,2-DICHLOROBENZENE
10U 2-METHYLPHENOL
10U BIS(2-CHLOROISOPROPYL) ETHER
10U (3-AND/OR 4-)METHYLPHENOL
10U N-NITROSODI-N-PROPYLAMINE
10U HEXACHLOROETHANE
10U NITROBENZENE
10U ISOPHORONE
10U 2-NITROPHENOL
10U 2,4-DIMETHYLPHENOL
50UJ BENZOIC ACID
10U BIS(2-CHLOROETHOXY) METHANE
10U 2,4-DICHLOROPHENOL
10U 1,2,4-TRICHLOROBENZENE
10U NAPHTHALENE
10U 4-CHLOROANILINE
10U HEXACHLOROBUTADIENE
10U 4-CHLORO-3-METHYLPHENOL
10U 2-METHYLNAPHTHALENE
10U HEXACHLOROCYCLOPENTADIENE (HCCP)
10U 2,4,6-TRICHLOROPHENOL
50U 2,4,5-TRICHLOROPHENOL
10U 2-CHLORONAPHTHALENE
50U 2-NITROANILINE
10U DIMETHYL PHTHALATE
10U ACENAPHTHYLENE
10U 2,6-DINITROTOLUENE

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50U 3-NITROANILINE
10U ACENAPHTHENE
50U 2,4-DINITROPHENOL
50UJ 4-NITROPHENOL
10U DIBENZOFURAN
10U 2,4-DINITROTOLUENE
10U DIETHYL PHTHALATE
10U 4-CHLOROPHENYL PHENYL ETHER
10U FLUORENE
50U 4-NITROANILINE
50U 2-METHYL-4,6-DINITROPHENOL
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U 4-BROMOPHENYL PHENYL ETHER
10U HEXACHLOROBENZENE (HCB)
50U PENTACHLOROPHENOL
10U PHENANTHRENE
10U ANTHRACENE
10U DI-N-BUTYLPHTHALATE
10U FLUORANTHENE
10U PYRENE
10U BENZYL BUTYL PHTHALATE
20U 3,3'-DICHLORO BENZIDINE
10U BENZO(A)ANTHRACENE
10U CHRYSENE
30U BIS(2-ETHYLHEXYL) PHTHALATE
10U DI-N-OCTYLPHTHALATE
10U BENZO(B AND/OR K)FLUORANTHENE
10U BENZO-A-PYRENE
10U INDENO (1,2,3-CD) PYRENE
10U DIBENZO(A,H)ANTHRACENE
10U BENZO(GHI)PERYLENE

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\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30206 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-03 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*  
\*\*  
\*\* CASE NO.: 10400 SAS NO.: D. NO.: L193 \*\*  
\*\*\* \*\*  
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

490UJ PHENOL  
490UJ BIS(2-CHLOROETHYL) ETHER  
490UJ 2-CHLOROPHENOL  
490UJ 1,3-DICHLOROBENZENE  
490UJ 1,4-DICHLOROBENZENE  
490UJ BENZYL ALCOHOL  
490UJ 1,2-DICHLOROBENZENE  
490UJ 2-METHYLPHENOL  
490UJ BIS(2-CHLOROISOPROPYL) ETHER  
490UJ (3-AND/OR 4-)METHYLPHENOL  
490UJ N-NITROSODI-N-PROPYLAMINE  
490UJ HEXACHLOROETHANE  
490UJ NITROBENZENE  
490UJ ISOPHORONE  
490UJ 2-NITROPHENOL  
490UJ 2,4-DIMETHYLPHENOL  
2500UJ BENZOIC ACID  
490UJ BIS(2-CHLOROETHOXY) METHANE  
490UJ 2,4-DICHLOROPHENOL  
490UJ 1,2,4-TRICHLOROBENZENE  
490UJ NAPHTHALENE  
490UJ 4-CHLOROANILINE  
490UJ HEXACHLOROBUTADIENE  
490UJ 4-CHLORO-3-METHYLPHENOL  
490UJ 2-METHYLNAPHTHALENE  
490UJ HEXACHLOROCYCLOPENTADIENE (HCCP)  
490UJ 2,4,6-TRICHLOROPHENOL  
2500UJ 2,4,5-TRICHLOROPHENOL  
490UJ 2-CHLORONAPHTHALENE  
2500UJ 2-NITROANILINE  
490UJ DIMETHYL PHTHALATE  
490UJ ACENAPHTHYLENE  
490UJ 2,6-DINITROTOLUENE

2500UJ 3-NITROANILINE  
490UJ ACENAPHTHENE  
2500UJ 2,4-DINITROPHENOL  
2500UJ 4-NITROPHENOL  
490UJ DIBENZOFURAN  
490UJ 2,4-DINITROTOLUENE  
490UJ DIETHYL PHTHALATE  
490UJ 4-CHLOROPHENYL PHENYL ETHER  
490UJ FLUORENE  
2500UJ 4-NITROANILINE  
2500UJ 2-METHYL-4,6-DINITROPHENOL  
490UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE  
490UJ 4-BROMOPHENYL PHENYL ETHER  
490UJ HEXACHLOROBENZENE (HCB)  
2500UJ PENTACHLOROPHENOL  
490UJ PHENANTHRENE  
490UJ ANTHRACENE  
490UJ DI-N-BUTYLPHTHALATE  
490UJ FLUORANTHENE  
490UJ PYRENE  
490UJ BENZYL BUTYL PHTHALATE  
990UJ 3,3'-DICHLOROBENZIDINE  
490UJ BENZO(A)ANTHRACENE  
490UJ CHRYSENE  
490UJ BIS(2-ETHYLHEXYL) PHTHALATE  
490UJ DI-N-OCTYLPHTHALATE  
490UJ BENZO(B AND/OR K)FLUORANTHENE  
490UJ BENZO-A-PYRENE  
490UJ INDENO (1,2,3-CD) PYRENE  
490UJ DIBENZO(A,H)ANTHRACENE  
490UJ BENZO(GHI)PERYLENE  
33 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

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\*\* PROJECT NO. 88-621 SAMPLE NO. 30207 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*

\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*

\*\* STATION ID: SS-02 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*

\*\* CASE NO.: 10400 SAS NO.: D. NO.: L137 \*\*

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UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

390UJ PHENOL

390UJ BIS(2-CHLOROETHYL) ETHER

390UJ 2-CHLOROPHENOL

390UJ 1,3-DICHLOROBENZENE

390UJ 1,4-DICHLOROBENZENE

390UJ BENZYL ALCOHOL

390UJ 1,2-DICHLOROBENZENE

390UJ 2-METHYLPHENOL

390UJ BIS(2-CHLOROISOPROPYL) ETHER

390UJ (3-AND/OR 4-)METHYLPHENOL

390UJ N-NITROSODI-N-PROPYLAMINE

390UJ HEXACHLOROETHANE

390UJ NITROBENZENE

390UJ ISOPHORONE

390UJ 2-NITROPHENOL

390UJ 2,4-DIMETHYLPHENOL

1900UJ BENZOIC ACID

390UJ BIS(2-CHLOROETHOXY) METHANE

390UJ 2,4-DICHLOROPHENOL

390UJ 1,2,4-TRICHLOROBENZENE

390UJ NAPHTHALENE

390UJ 4-CHLOROANILINE

390UJ HEXACHLOROBUTADIENE

390UJ 4-CHLORO-3-METHYLPHENOL

390UJ 2-METHYLNAPHTHALENE

390UJ HEXACHLOROCYCLOPENTADIENE (HCCP)

390UJ 2,4,6-TRICHLOROPHENOL

1900UJ 2,4,5-TRICHLOROPHENOL

390UJ 2-CHLORONAPHTHALENE

1900UJ 2-NITROANILINE

390UJ DIMETHYL PHTHALATE

390UJ ACENAPHTHYLENE

390UJ 2,6-DINITROTOLUENE

1900UJ 3-NITROANILINE

390UJ ACENAPHTHENE

1900UJ 2,4-DINITROPHENOL

1900UJ 4-NITROPHENOL

390UJ DIBENZOFURAN

390UJ 2,4-DINITROTOLUENE

390UJ DIETHYL PHTHALATE

390UJ 4-CHLOROPHENYL PHENYL ETHER

390UJ FLUORENE

1900UJ 4-NITROANILINE

1900UJ 2-METHYL-4,6-DINITROPHENOL

390UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE

390UJ 4-BROMOPHENYL PHENYL ETHER

390UJ HEXACHLOROBENZENE (HCB)

1900UJ PENTACHLOROPHENOL

390UJ PHENANTHRENE

390UJ ANTHRACENE

390UJ DI-N-BUTYLPHTHALATE

390UJ FLUORANTHENE

390UJ PYRENE

390UJ BENZYL BUTYL PHTHALATE

780UJ 3,3'-DICHLOROBENZIDINE

390UJ BENZO(A)ANTHRACENE

390UJ CHRYSENE

3700UJ BIS(2-ETHYLHEXYL) PHTHALATE

390UJ DI-N-OCTYLPHTHALATE

390UJ BENZO(B AND/OR K)FLUORANTHENE

390UJ BENZO-A-PYRENE

390UJ INDENO (1,2,3-CD) PYRENE

390UJ DIBENZO(A,H)ANTHRACENE

390UJ BENZO(GHI)PERYLENE

14 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*

EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

EXTRACTABLE ORGANICS DATA REPORT

\*\*\* \*\* \* PROJECT NO. 88-621 SAMPLE NO. 30208 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SD-03 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*

\*\*\* CASE NO.: 10400 SAS NO.: D. NO.: L194 \*\*\*

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
420UJ	PHENOL	2100UJ	3-NITROANILINE
420UJ	BIS(2-CHLOROETHYL) ETHER	420UJ	ACENAPHTHENE
420UJ	2-CHLOROPHENOL	2100UJ	2,4-DINITROPHENOL
420UJ	1,3-DICHLOROBENZENE	2100UJ	4-NITROPHENOL
420UJ	1,4-DICHLOROBENZENE	420UJ	DIBENZOFURAN
420UJ	BENZYL ALCOHOL	420UJ	2,4-DINITROTOLUENE
420UJ	1,2-DICHLOROBENZENE	420UJ	DIETHYL PHTHALATE
420UJ	2-METHYLPHENOL	420UJ	4-CHLOROPHENYL PHENYL ETHER
420UJ	BIS(2-CHLOROISOPROPYL) ETHER	420UJ	FLUORENE
420UJ	(3-AND/OR 4-)METHYLPHENOL	2100UJ	4-NITROANILINE
420UJ	N-NITROSODI-N-PROPYLAMINE	2100UJ	2-METHYL-4,6-DINITROPHENOL
420UJ	HEXACHLOROETHANE	420UJ	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
420UJ	NITROBENZENE	420UJ	4-BROMOPHENYL PHENYL ETHER
420UJ	ISOPHORONE	420UJ	HEXACHLOROBENZENE (HCB)
420UJ	2-NITROPHENOL	2100UJ	PENTACHLOROPHENOL
420UJ	2,4-DIMETHYLPHENOL	420UJ	PHENANTHRENE
2100UJ	BENZOIC ACID	420UJ	ANTHRACENE
420UJ	BIS(2-CHLOROETHOXY) METHANE	420UJ	DI-N-BUTYLPHTHALATE
420UJ	2,4-DICHLOROPHENOL	420UJ	FLUORANTHENE
420UJ	1,2,4-TRICHLOROBENZENE	420UJ	PYRENE
420UJ	NAPHTHALENE	420UJ	BENZYL BUTYL PHTHALATE
420UJ	4-CHLOROANILINE	830UJ	3,3'-DICHLOROBENZIDINE
420UJ	HEXACHLOROBUTADIENE	420UJ	BENZO(A)ANTHRACENE
420UJ	4-CHLORO-3-METHYLPHENOL	420UJ	CHRYSENE
420UR	2-METHYLNAPHTHALENE	420UJ	BIS(2-ETHYLHEXYL) PHTHALATE
420UJ	HEXACHLOROCYCLOPENTADIENE (HCCP)	420UJ	DI-N-OCTYLPHTHALATE
420UJ	2,4,6-TRICHLOROPHENOL	420UJ	BENZO(B AND/OR K)FLUORANTHENE
2100UJ	2,4,5-TRICHLOROPHENOL	420UJ	BENZO-A-PYRENE
420UJ	2-CHLORONAPHTHALENE	420UJ	INDENO (1,2,3-CD) PYRENE
2100UJ	2-NITROANILINE	420UJ	DIBENZO(A,H)ANTHRACENE
420UJ	DIMETHYL PHTHALATE	420UJ	BENZO(GHI)PERYLENE
420UJ	ACENAPHTHYLENE	20	PERCENT MOISTURE
420UJ	2,6-DINITROTOLUENE		

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

```
*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30195  SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-01   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE.NO.: 10400   SAS NO.:   D. NO.: L131   MD NO:   **
** ** ** **
*** ** ** **
```

RESULTS UNITS COMPOUND  
900J UG/KG 2 UNIDENTIFIED COMPOUNDS

RESULTS UNITS COMPOUND

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*  
\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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*** * * * *
** PROJECT NO. 88-621    SAMPLE NO. 30197  SAMPLE TYPE: SURFACEWA  PROG ELEM: NSF  COLLECTED BY: A SPAUGH  **
** SOURCE: CAST-CRETE CORPORATI  CITY: TAMPA  ST: FL  **
** STATION ID: SW-05  COLLECTION START: 09/12/88  STOP: 00/00/00  **
** CASE.NO.: 10400  SAS NO.:  D. NO.: L133  MD NO:  **
**
*** * * * *

```

RESULTS UNITS COMPOUND  
10JN UG/L HEXANEDIOIC ACID DIOCTYLESTER

RESULTS UNITS COMPOUND

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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*** ** ** ** **
** PROJECT NO. 88-621 SAMPLE NO. 30202 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH **
** SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL **
** STATION ID: SW-06 COLLECTION START: 09/12/88 STOP: 00/00/00 **
** CASE NO.: 10400 SAS NO.: D. NO.: L134 MD NO: **
**
*** ** ** ** *

```

RESULTS UNITS COMPOUND  
10JN UG/L HEXANEDIOIC ACID, DIOCTYL ESTER

RESULTS UNITS COMPOUND

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
\*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

10/14/88

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*****
** PROJECT NO. 88-621      SAMPLE NO. 30203  SAMPLE TYPE: SOIL  PROG ELEM: NSF      COLLECTED BY: A SPAUGH  **
** SOURCE: CAST-CRETE CORPORATI  CITY: TAMPA      ST: FL  **
** STATION ID: SS-04      COLLECTION START: 09/12/88  STOP: 00/00/00  **
** CASE NO.: 10400      SAS NO.:      D. NO.: L135      MD NO:  **
**                               **
*****

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RESULTS	UNITS	COMPOUND
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\*\*\*REMARKS\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30206   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-03   COLLECTION START: 09/13/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.: L193   MD NO:   **
** ** ** **
*** ** ** **

```

RESULTS UNITS COMPOUND  
N UG/KG PETROLEUM PRODUCT  
10000N UG/KG DIETHYLMETHYLBENZENE  
10000N UG/KG ETHYLDIMETHYLBENZENE

RESULTS UNITS COMPOUND  
20000N UG/KG CHLOROMETHYLBENZENE  
10000N UG/KG TETRAMETHYLBENZENE  
200000J UG/KG 14 UNIDENTIFIED COMPOUNDS

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

```
*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30207   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-02   COLLECTION START: 09/13/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.: L137   MD NO:   **
** ** ** **
*** ** ** **
```

RESULTS UNITS COMPOUND  
N UG/KG PETROLEUM PRODUCT  
20000.0 UG/KG 6 UNIDENTIFIED COMPOUNDS

RESULTS UNITS COMPOUND  
400JN UG/KG BIS(DIMETHYLETHYL)PHENOL

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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*** ** ** ** **
** PROJECT NO. 88-621   SAMPLE NO. 30208   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SD-03   COLLECTION START: 09/13/88   STOP: 00/00/00   **
** CASE NO.: 10400   SAS NO.:   D. NO.: L194   MD NO:   **
** ** ** **
```

RESULTS UNITS COMPOUND  
3000J UG/KG 6 UNIDENTIFIED COMPOUNDS

RESULTS UNITS COMPOUND  
3000JN UG/KG THIOBIS(DIMETHYLETHYL)METHYLPHENOL

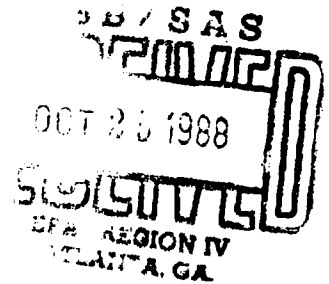
\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*  
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV  
COLLEGE STATION RD.  
ATHENS, GA. 30613



\*\*\*\*\*MEMORANDUM\*\*\*\*\*

DATE: 10/15/88

SUBJECT: Results of Pesticide/PCB Analysis;  
88-621 CAST-CRETE CORPORATI  
TAMPA FL  
CASE NO: 10400

FROM: Robert W. Knight  
Chief, Laboratory Evaluation/Quality Assurance Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30194 SAMPLE TYPE: SURFACEWA PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: TB-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: D. NUMBER: L128 \*\*  
\*\* \*\*

UG/L ANALYTICAL RESULTS

.05U ALPHA-BHC  
.05U BETA-BHC  
.05U DELTA-BHC  
.05U GAMMA-BHC (LINDANE)  
.05U HEPTACHLOR  
.05U ALDRIN  
.05U HEPTACHLOR EPOXIDE  
.05U ENDOSULFAN I (ALPHA)  
.1U DIELDRIN  
.1U 4,4'-DDE (P,P'-DDE)  
.1U ENDRIN  
.1U ENDOSULFAN II (BETA)  
.1U 4,4'-DDD (P,P'-DDD)  
.1U ENDOSULFAN SULFATE  
.1U 4,4'-DDT (P,P'-DDT)

UG/L ANALYTICAL RESULTS

.5U METHOXYCHLOR  
.1U ENDRIN KETONE  
-- CHLORDANE (TECH. MIXTURE) /1  
.5U GAMMA-CHLORDANE /2  
.5U ALPHA-CHLORDANE /2  
.1U TOXAPHENE  
.5U PCB-1016 (AROCLOR 1016)  
.5U PCB-1221 (AROCLOR 1221)  
.5U PCB-1232 (AROCLOR 1232)  
.5U PCB-1242 (AROCLOR 1242)  
.5U PCB-1248 (AROCLOR 1248)  
.1U PCB-1254 (AROCLOR 1254)  
.1U PCB-1260 (AROCLOR 1260)

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
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\*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

\*\*\* \*\*  
\*\* PROJECT NO. 88-621 SAMPLE NO. 30195 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-01 COLLECTION START: 09/12/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: D. NUMBER: L131 \*\*  
\*\*

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
90UJ	ALPHA-BHC	89UJ	METHOXYCHLOR
90UJ	BETA-BHC	180UJ	ENDRIN KETONE
90UJ	DELTA-BHC	---	CHLORDANE (TECH. MIXTURE) /1
90UJ	GAMMA-BHC (LINDANE)	89UJ	GAMMA-CHLORDANE /2
90UJ	HEPTACHLOR	89UJ	ALPHA-CHLORDANE /2
90UJ	ALDRIN	180UJ	TOXAPHENE
90UJ	HEPTACHLOR EPOXIDE	89UJ	PCB-1016 (AROCLOR 1016)
90UJ	ENDOSULFAN I (ALPHA)	89UJ	PCB-1221 (AROCLOR 1221)
180UJ	DIELDRIN	89UJ	PCB-1232 (AROCLOR 1232)
180UJ	4,4'-DDE (P,P'-DDE)	89UJ	PCB-1242 (AROCLOR 1242)
180UJ	ENDRIN	89UJ	PCB-1248 (AROCLOR 1248)
180UJ	ENDOSULFAN II (BETA)	180UJ	PCB-1254 (AROCLOR 1254)
180UJ	4,4'-DDD (P,P'-DDD)	180UJ	PCB-1260 (AROCLOR 1260)
180UJ	ENDOSULFAN SULFATE	11	PERCENT MOISTURE
180UJ	4,4'-DDT (P,P'-DDT)		

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

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\*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

10/14/88

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** PROJECT NO. 88-621    SAMPLE NO. 30196    SAMPLE TYPE: GROUNDWA    PROG ELEM: NSF    COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL
** STATION ID: PW-01    COLLECTION START: 09/12/88    STOP: 00/00/00
** CASE NUMBER: 10400    SAS NUMBER:    D. NUMBER: L132

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ANALYTICAL RESULTS		ANALYTICAL RESULTS	
.05U	ALPHA-BHC	.5U	METHOXYCHLOR
.05U	BETA-BHC	.1U	ENDRIN KETONE
.05U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
.05U	GAMMA-BHC (LINDANE)	.5U	GAMMA-CHLORDANE /2
.05U	HEPTACHLOR	.5U	ALPHA-CHLORDANE /2
.05U	ALDRIN	.1U	TOXAPHENE
.05U	HEPTACHLOR EPOXIDE	.5U	PCB-1016 (AROCLOR 1016)
.05U	ENDOSULFAN I (ALPHA)	.5U	PCB-1221 (AROCLOR 1221)
.1U	DIELDRIN	.5U	PCB-1232 (AROCLOR 1232)
.1U	4,4'-DDE (P,P'-DDE)	.5U	PCB-1242 (AROCLOR 1242)
.1U	ENDRIN	.5U	PCB-1248 (AROCLOR 1248)
.1U	ENDOSULFAN II (BETA)	.1U	PCB-1254 (AROCLOR 1254)
.1U	4,4'-DDD (P,P'-DDD)	.1U	PCB-1260 (AROCLOR 1260)
.1U	ENDOSULFAN SULFATE		
.1U	4,4'-DDT (P,P'-DDT)		

\*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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\*C-CONFIRMED BY GCMS      1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

10/14/88

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*** 101012271025 *** DATA REPORT ***
** PROJECT NO. 88-621    SAMPLE NO. 30197  SAMPLE TYPE: SURFACEWA  PROG ELEM: NSF    COLLECTED BY: A SPAUGH
** SOURCE: CAST-CRETE CORPORATI  CITY: TAMPA    ST: FL
** STATION ID: SW-05    COLLECTION START: 09/12/88    STOP: 00/00/00
** CASE NUMBER: 10400    SAS NUMBER:    D. NUMBER: L133

```

*** * * * * ANALYTICAL RESULTS * * * * *		*** * * * * ANALYTICAL RESULTS * * * * *	
UG/L		UG/L	
.05U	ALPHA-BHC	.5U	METHOXYCHLOR
.05U	BETA-BHC	.1U	ENDRIN KETONE
.05U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
.05U	GAMMA-BHC (LINDANE)	.5U	GAMMA-CHLORDANE /2
.05U	HEPTACHLOR	.5U	ALPHA-CHLORDANE /2
.05U	ALDRIN	.1U	TOXAPHENE
.05U	HEPTACHLOR EPOXIDE	.5U	PCB-1016 (AROCLOR 1016)
.05U	ENDOSULFAN I (ALPHA)	.5U	PCB-1221 (AROCLOR 1221)
.1U	DIELDRIN	.5U	PCB-1232 (AROCLOR 1232)
.1U	4,4'-DDE (P,P'-DDE)	.5U	PCB-1242 (AROCLOR 1242)
.1U	ENDRIN	.5U	PCB-1248 (AROCLOR 1248)
.1U	ENDOSULFAN II (BETA)	.1U	PCB-1254 (AROCLOR 1254)
.1U	4,4'-DDD (P,P'-DDD)	.1U	PCB-1260 (AROCLOR 1260)
.1U	ENDOSULFAN SULFATE		
.1U	4,4'-DDT (P,P'-DDT)		

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE      \*NA-NOT ANALYZED      \*NAI-INTERFERENCES      \*J-ESTIMATED VALUE      \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN      \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
 \*C-CONFIRMED BY GCMS      1. WHEN NO VALUE IS REPORTED. SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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*** ** ** ** **
**  PROJECT NO. 88-621   SAMPLE NO. 30202  SAMPLE TYPE: SURFACEWA  PROG ELEM: NSF   COLLECTED BY: A SPAUGH  **
**  SOURCE: CAST-CRETE CORPORATI  CITY: TAMPA  ST: FL  **
**  STATION ID: SW-06  COLLECTION START: 09/12/88  STOP: 00/00/00  **
**  CASE NUMBER: 10400  SAS NUMBER:  D. NUMBER: L134  **
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UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
.05U	ALPHA-BHC	.5U	METHOXYCHLOR
.05U	BETA-BHC	.1U	ENDRIN KETONE
.05U	DELTA-BHC	---	CHLORDANE (TECH. MIXTURE) /1
.05U	GAMMA-BHC (LINDANE)	.5U	GAMMA-CHLORDANE /2
.05U	HEPTACHLOR	.5U	ALPHA-CHLORDANE /2
.05U	ALDRIN	.1U	TOXAPHENE
.05U	HEPTACHLOR EPOXIDE	.5U	PCB-1016 (AROCLOR 1016)
.05U	ENDOSULFAN I (ALPHA)	.5U	PCB-1221 (AROCLOR 1221)
.1U	DIELDRIN	.5U	PCB-1232 (AROCLOR 1232)
.1U	4,4'-DDE (P,P'-DDE)	.5U	PCB-1242 (AROCLOR 1242)
.1U	ENDRIN	.5U	PCB-1248 (AROCLOR 1248)
.1U	ENDOSULFAN II (BETA)	.1U	PCB-1254 (AROCLOR 1254)
.1U	4,4'-DDD (P,P'-DDD)	.1U	PCB-1260 (AROCLOR 1260)
.1U	ENDOSULFAN SULFATE		
.1U	4,4'-DDT (P,P'-DDT)		

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
 \*C-CONFIRMED BY GCMS                      1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.



SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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*** **
** PROJECT NO. 88-621   SAMPLE NO. 30203   SAMPLE TYPE: SOIL   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SS-04   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L135   **
** **

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UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
14UJ	ALPHA-BHC	140UJ	METHOXYCHLOR
14UJ	BETA-BHC	290UJ	ENDRIN KETONE
14UJ	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
14UJ	GAMMA-BHC (LINDANE)	140UJ	GAMMA-CHLORDANE /2
14UJ	HEPTACHLOR	140UJ	ALPHA-CHLORDANE /2
14UJ	ALDRIN	290UJ	TOXAPHENE
14UJ	HEPTACHLOR EPOXIDE	140UJ	PCB-1016 (AROCLOR 1016)
14UJ	ENDOSULFAN I (ALPHA)	140UJ	PCB-1221 (AROCLOR 1221)
29UJ	DIELDRIN	140UJ	PCB-1232 (AROCLOR 1232)
29UJ	4,4'-DDE (P,P'-DDE)	140UJ	PCB-1242 (AROCLOR 1242)
29UJ	ENDRIN	140UJ	PCB-1248 (AROCLOR 1248)
29UJ	ENDOSULFAN II (BETA)	290UJ	PCB-1254 (AROCLOR 1254)
29UJ	4,4'-DDD (P,P'-DDD)	290UJ	PCB-1260 (AROCLOR 1260)
29UJ	ENDOSULFAN SULFATE	45	PERCENT MOISTURE
29UJ	4,4'-DDT (P,P'-DDT)		

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
 \*C-CONFIRMED BY GCMS    1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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*** * * * *
** PROJECT NO. 88-621   SAMPLE NO. 30204   SAMPLE TYPE: SURFACEWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: SW-04   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L130   **
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UG/L ANALYTICAL RESULTS

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.07UJ ALPHA-BHC
.07UJ BETA-BHC
.07UJ DELTA-BHC
.07UJ GAMMA-BHC (LINDANE)
.07UJ HEPTACHLOR
.07UJ ALDRIN
.07UJ HEPTACHLOR EPOXIDE
.1UJ ENDOSULFAN I (ALPHA)
.1UJ DIELDRIN
.1UJ 4,4'-DDE (P,P'-DDE)
.1UJ ENDRIN
.1UJ ENDOSULFAN II (BETA)
.1UJ 4,4'-DDD (P,P'-DDD)
.1UJ ENDOSULFAN SULFATE
.1UJ 4,4'-DDT (P,P'-DDT)
  
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UG/L ANALYTICAL RESULTS

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.7UJ METHOXYCHLOR
.1UJ ENDRIN KETONE
-- CHLORDANE (TECH. MIXTURE) /1
.7UJ GAMMA-CHLORDANE /2
.7UJ ALPHA-CHLORDANE /2
.1UJ TOXAPHENE
.7UJ PCB-1016 (AROCOR 1016)
.7UJ PCB-1221 (AROCOR 1221)
.7UJ PCB-1232 (AROCOR 1232)
.7UJ PCB-1242 (AROCOR 1242)
.7UJ PCB-1248 (AROCOR 1248)
.1UJ PCB-1254 (AROCOR 1254)
.1UJ PCB-1260 (AROCOR 1260)
  
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\*\*\*REMARKS\*\*\*

HOLDING TIMES EXCEEDED(40 CFR 136.OCTOBER 26,1984)

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

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*A-AVERAGE VALUE   *NA-NOT ANALYZED   *NAI-INTERFERENCES   *J-ESTIMATED VALUE   *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN   *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.
*C-CONFIRMED BY GCMS   1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
  
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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*** **
** PROJECT NO. 88-621   SAMPLE NO. 30205   SAMPLE TYPE: GROUNDWA   PROG ELEM: NSF   COLLECTED BY: A SPAUGH   **
** SOURCE: CAST-CRETE CORPORATI   CITY: TAMPA   ST: FL   **
** STATION ID: MW-01   COLLECTION START: 09/12/88   STOP: 00/00/00   **
** CASE NUMBER: 10400   SAS NUMBER:   D. NUMBER: L129   **
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UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
.05U	ALPHA-BHC	.5U	METHOXYCHLOR
.05U	BETA-BHC	.1U	ENDRIN KETONE
.05U	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
.05U	GAMMA-BHC (LINDANE)	.5U	GAMMA-CHLORDANE /2
.05U	HEPTACHLOR	.5U	ALPHA-CHLORDANE /2
.05U	ALDRIN	.1U	TOXAPHENE
.05U	HEPTACHLOR EPOXIDE	.5U	PCB-1016 (AROCLOR 1016)
.05U	ENDOSULFAN I (ALPHA)	.5U	PCB-1221 (AROCLOR 1221)
.1U	DIELDRIN	.5U	PCB-1232 (AROCLOR 1232)
.1U	4,4'-DDE (P,P'-DDE)	.5U	PCB-1242 (AROCLOR 1242)
.1U	ENDRIN	.5U	PCB-1248 (AROCLOR 1248)
.1U	ENDOSULFAN II (BETA)	.1U	PCB-1254 (AROCLOR 1254)
.1U	4,4'-DDD (P,P'-DDD)	.1U	PCB-1260 (AROCLOR 1260)
.1U	ENDOSULFAN SULFATE		
.1U	4,4'-DDT (P,P'-DDT)		

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
 \*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.  
 \*C-CONFIRMED BY GCMS    1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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\*\* PROJECT NO. 88-621 SAMPLE NO. 30206 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SS-03 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: D. NUMBER: L193 \*\*  
\*\*  
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UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

12UJ ALPHA-BHC  
12UJ BETA-BHC  
12UJ DELTA-BHC  
12UJ GAMMA-BHC (LINDANE)  
12UJ HEPTACHLOR  
12UJ ALDRIN  
12UJ HEPTACHLOR EPOXIDE  
12UJ ENDOSULFAN I (ALPHA)  
24UJ DIELDRIN  
24UJ 4,4'-DDE (P,P'-DDE)  
24UJ ENDRIN  
24UJ ENDOSULFAN II (BETA)  
24UJ 4,4'-DDD (P,P'-DDD)  
24UJ ENDOSULFAN SULFATE  
24UJ 4,4'-DDT (P,P'-DDT)

120UJ METHOXYCHLOR  
240UJ ENDRIN KETONE  
-- CHLORDANE (TECH. MIXTURE) /1  
120UJ GAMMA-CHLORDANE /2  
120UJ ALPHA-CHLORDANE /2  
240UJ TOXAPHENE  
120UJ PCB-1016 (AROCLOR 1016)  
120UJ PCB-1221 (AROCLOR 1221)  
120UJ PCB-1232 (AROCLOR 1232)  
120UJ PCB-1242 (AROCLOR 1242)  
120UJ PCB-1248 (AROCLOR 1248)  
240UJ PCB-1254 (AROCLOR 1254)  
240UJ PCB-1260 (AROCLOR 1260)  
32 PERCENT MOISTURE

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
\*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
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\*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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*** **
** PROJECT NO. 88-621    SAMPLE NO. 30207  SAMPLE TYPE: SOIL    PROG ELEM: NSF    COLLECTED BY: A SPAUGH    **
** SOURCE: CAST-CRETE CORPORATI    CITY: TAMPA    ST: FL    **
** STATION ID: SS-02    COLLECTION START: 09/13/88    STOP: 00/00/00    **
** CASE NUMBER: 10400    SAS NUMBER:    D. NUMBER: L137    **
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*** **	UG/KG	ANALYTICAL RESULTS	*** **	UG/KG	ANALYTICAL RESULTS	*** **
90UJ		ALPHA-BHC	93UJ		METHOXYCHLOR	
90UJ		BETA-BHC	190UJ		ENDRIN KETONE	
90UJ		DELTA-BHC			CHLORDANE (TECH. MIXTURE) /1	
90UJ		GAMMA-BHC (LINDANE)	93UJ		GAMMA-CHLORDANE /2	
90UJ		HEPTACHLOR	93UJ		ALPHA-CHLORDANE /2	
90UJ		ALDRIN	190UJ		TOXAPHENE	
20J		HEPTACHLOR EPOXIDE	93UJ		PCB-1016 (AROCLOR 1016)	
90UJ		ENDOSULFAN I (ALPHA)	93UJ		PCB-1221 (AROCLOR 1221)	
190UJ		DIELDRIN	93UJ		PCB-1232 (AROCLOR 1232)	
190UJ		4,4'-DDE (P,P'-DDE)	93UJ		PCB-1242 (AROCLOR 1242)	
190UJ		ENDRIN	93UJ		PCB-1248 (AROCLOR 1248)	
190UJ		ENDOSULFAN II (BETA)	190UJ		PCB-1254 (AROCLOR 1254)	
190UJ		4,4'-DDD (P,P'-DDD)	190UJ		PCB-1260 (AROCLOR 1260)	
190UJ		ENDOSULFAN SULFATE				
190UJ		4,4'-DDT (P,P'-DDT)	14		PERCENT MOISTURE	

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*

\*A-AVERAGE VALUE    \*NA-NOT ANALYZED    \*NAI-INTERFERENCES    \*J-ESTIMATED VALUE    \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
 \*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN    \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
 \*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.  
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 \*C-CONFIRMED BY GCMS    1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM  
EPA-REGION IV ESD, ATHENS, GA.

10/14/88

PESTICIDES/PCB'S DATA REPORT

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\*\* PROJECT NO. 88-621 SAMPLE NO. 30208 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: A SPAUGH \*\*  
\*\* SOURCE: CAST-CRETE CORPORATI CITY: TAMPA ST: FL \*\*  
\*\* STATION ID: SD-03 COLLECTION START: 09/13/88 STOP: 00/00/00 \*\*  
\*\* CASE NUMBER: 10400 SAS NUMBER: D. NUMBER: L194 \*\*  
\*\*

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
10UJ	ALPHA-BHC	100UJ	METHOXYCHLOR
10UJ	BETA-BHC	200UJ	ENDRIN KETONE
10UJ	DELTA-BHC	--	CHLORDANE (TECH. MIXTURE) /1
10UJ	GAMMA-BHC (LINDANE)	100UJ	GAMMA-CHLORDANE /2
10UJ	HEPTACHLOR	100UJ	ALPHA-CHLORDANE /2
10UJ	ALDRIN	200UJ	TOXAPHENE
10UJ	HEPTACHLOR EPOXIDE	100UJ	PCB-1016 (AROCLOR 1016)
10UJ	ENDOSULFAN I (ALPHA)	100UJ	PCB-1221 (AROCLOR 1221)
20UJ	DIELDRIN	100UJ	PCB-1232 (AROCLOR 1232)
20UJ	4,4'-DDE (P,P'-DDE)	100UJ	PCB-1242 (AROCLOR 1242)
20UJ	ENDRIN	100UJ	PCB-1248 (AROCLOR 1248)
20UJ	ENDOSULFAN II (BETA)	200UJ	PCB-1254 (AROCLOR 1254)
20UJ	4,4'-DDD (P,P'-DDD)	200UJ	PCB-1260 (AROCLOR 1260)
20UJ	ENDOSULFAN SULFATE	20	PERCENT MOISTURE
20UJ	4,4'-DDT (P,P'-DDT)		

\*\*\*REMARKS\*\*\*  
EXCESSIVE HOLDING TIME

\*\*\*REMARKS\*\*\*

\*\*\*FOOTNOTES\*\*\*  
\*A-AVERAGE VALUE \*NA-NOT ANALYZED \*NAI-INTERFERENCES \*J-ESTIMATED VALUE \*N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL  
\*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN \*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN  
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CAST-CRETE CORPORATION OF FLORIDA  
FLD004427662  
PRELIMINARY ASSESSMENT

- A. SITE DESCRIPTION. This facility is a concrete product manufacturer [1] located west of SR 579 and 3/4 mile north of I-4, Tampa, Hillsborough County, Florida (Fig. 1) [5]. The facility is active and has been in operation for at least six years [5].
- B. DESCRIPTION OF HAZARDOUS CONDITIONS, INCIDENTS AND PERMIT VIOLATIONS.

The facility uses oil-lubricated forms to manufacture concrete products such as reinforced beams, lintels, seals and drainage structures [1,5,12]. Excess lubricating oil is routinely spilled on the ground [10].

Ready-Mix trucks are cleaned on-site eight to ten times per day [10, 12]. Truck exteriors are washed with water [12], and engines are steam cleaned with degreasing solutions [1,10]. Effluent from truck washing and engine steam-cleaning operations flows to an unlined holding pond located in the northwest corner of the property [5,10,12].

Large piles of crushed limestone used in concrete formulation were continuously sprayed with water to control dust and saturate the rock [11,12]. The resulting effluent was directed to the holding pond, thus providing the bulk of pond input [10].

Excess pondwater was continuously discharged into a drainage ditch via a concrete flume [5,10,12]. The pond and flume are equipped with mechanical skimmers, which removed floating oil, grease and debris [10,12]. The receiving ditch, which is maintained and annually dredged by Hillsborough County [12], discharges into a swamp (located approximately 500 meters downstream of the discharge point) that eventually drains into Six-Mile Creek [1,6,7,10]. Precipitated material is dredged from the pond periodically [12], but the disposition of the resultant spoil material is unknown [13].

A two-foot curb bordering the property retains and channels on-site stormwater into the holding pond [10,12] and prevents potentially contaminated storm water (from an adjacent landfill) from entering facility property [12].

Hillsborough County Environmental Protection Commission (HCEPC) reported violations of Class III Surface Water Standards (C3SWS) for oil and grease in site discharge collected from the concrete flume on 8/28/81 and 5/26/82 (Attachment A) [5]. On 11/2/83 HCEPC inspectors observed spilled oil on-site and an unpermitted site discharge entering a county ditch defined as state water [1]. On 12/19/83, FDER reported similar findings. HCEPC and FDER inspectors also reported that the president and vice-president of the company refused to apply for an industrial wastewater permit [1,2] (Attachment A).

FDER collected samples of site discharge from the concrete flume on 1/12/84, 1/19/84 and 3/5/84. On 8/9/84, a Notice of Violation (NOV) was issued to the facility for exceeding C3SWS for pH, turbidity and conductance [3,5] (Attachment A). On 8/10/84, conductivity and pH values exceeded C3SWS in site discharge collected from the concrete flume and in receiving waters downstream of the maximum potential mixing zone (a zone extending from the point of discharge to a location 50 meters downstream) [6].

On 12/21/84, FDER determined that dissolved oxygen in the ditch receiving site discharge complied with C3SWS [7] (Attachment A).

On 8/8/85 FDER entered a Final Order requiring the company to apply for an Industrial Wastewater Permit by 9/9/85 or cease discharging wastewater from the facility [15]. Cast-Crete appealed the Order on 8/29/85 [14] and lost the Appeal on 4/15/86 [9]. Cast-Crete subsequently halted rock-washing operations and ceased discharging wastewater from the facility [8].

- C. NATURE OF HAZARDOUS MATERIAL. Potentially toxic, but unspecified detergents, degreasing solvents and lubricating oil are present on-site [2,10,12].
- D. ROUTES OF CONTAMINATION. Groundwater and direct contact are potential routes of contamination. Surface water contamination is documented [2,3,4,5,6,10,12].
- E. POSSIBLE AFFECTED POPULATION AND RESOURCES. Within a three mile radius of the site, at least 213 potable wells are finished in the potentially unconfined Floridan aquifer [17,20,24]. The aquifer is generally encountered within 40-65 feet of the surface [17,20] and is overlain by unconsolidated, permeable sediments [20]. Spilled oils or contaminated leachate from the unlined pond [5] could migrate into the groundwater, but recent (1986) samples from several downgradient private wells were free of priority pollutants [18].

On-site workers could directly encounter oil and degreasers via working surfaces, or contaminated soil [1,2,10]. The public is unlikely to make direct contact with potential on-site contaminants because the site is fenced [23].

Potentially contaminated stormwater could continue to pollute downstream water, although the major source of discharge was discontinued in 1986 [8,9,12]. Recreational use of downstream waters could be threatened. No priority pollutant analyses have been done on surface water samples.



- F. RECOMMENDATIONS AND JUSTIFICATIONS. Contaminated site discharge entered a county ditch, defined as water of the state (Attachment A) [10]. Possible priority pollutants associated with the discharge were never identified through analyses. Rock-sprinkling practices that generated the major component of site discharge were halted in 1986 [8,9].

Potentially contaminated soil [1,2,5] and leachate from an unlined pond could enter groundwater, but FDER recently (1986) determined that downgradient wells are not contaminated with priority pollutants. EPA plans to sample additional private wells in conjunction with a forward planning study of a nearby Superfund site. Forthcoming results will determine future action [18]. Therefore, a low priority for site inspection is recommended at this time.

ATTACHMENT A  
SITE INSPECTION SUMMARY  
CAST-CRETE CORPORATION OF FLORIDA  
FLD004427662

Date (Agency)	Sample Type	ANALYSIS				Comments
		VOC	SVOC	P/F	MET	
8/28/81 (HCEFC)	SW					Site discharge sampled from the concrete flume contained oil and grease (14 mg/l) <sup>V</sup> [5].
5/26/82 (HCEFC)	SW					Site discharge sampled from the concrete flume contained oil and grease (12 mg/l) <sup>V</sup> [5].
11/2/83 (HCEFC)						A site inspection revealed that industrial wastewater was discharging to an unlined on-site pond, which drained into a ditch leading to Six Mile Creek. Bill Kardash, the Vice-President of Cast-Crete refused to apply for an Industrial Wastewater Permit [1].
12/19/83 (HCEFC)						An inspection observed spilled oil on-site and wastewater discharged to a county ditch off-site. Mr. Hughes, the company's President, refused to apply for a permit [1,2].
1/12/84 (FDER)	SW					<div style="display: flex; justify-content: space-between;"> <div> <p>pH</p> <p>Site Discharge: 11.3<sup>V</sup> (Collected from the concrete flume) Background: -</p> </div> <div> <p>Turbidity (NTU)</p> <p>59<sup>V</sup>  2 [5]</p> </div> </div>
1/19/84 (FDER)	SW					<div style="display: flex; justify-content: space-between;"> <div> <p>pH</p> <p>Site Discharge: 11.9<sup>V</sup> (Collected from the concrete flume) Background: 4.9</p> </div> <div> <p>Conductivity (uMho/cm)</p> <p>2000<sup>V</sup>  90</p> </div> <div> <p>Turbidity (NTU)</p> <p>30<sup>V</sup>  2 [3,5]</p> </div> </div>
3/5/84 (FDER)	SW					<div style="display: flex; justify-content: space-between;"> <div> <p>pH</p> <p>Site Discharge: 10.85<sup>V</sup> (Collected from the concrete flume) Background: 4.6</p> </div> <div> <p>Conductivity (uMho/cm)</p> <p>1100<sup>V</sup>  100 [4,5]</p> </div> </div>
8/10/84 (FDER)	SW					<div style="display: flex; justify-content: space-between;"> <div> <p>pH</p> <p>Site Discharge: 10.7<sup>V</sup> (Collected from the discharge point) Background: 5.1 Receiving waters downstream of maximum potential mixing zone 7.0<sup>V</sup> (Zone = 50 m downstream of the discharge point):</p> </div> <div> <p>Conductivity (uMho/cm)</p> <p>1487  70  759<sup>V</sup> [6]</p> </div> </div>

ATTACHMENT A  
 SITE INSPECTION SUMMARY  
 CAST-CRETE CORPORATION OF FLORIDA  
 FID004427662  
 PAGE TWO

Date (Agency)	Sample Type	ANALYSIS				Comments
		VOC	SVOC	P/P	MET	
2/21/84 (FDER)	SW					The DO in water located downstream of the discharge point was lower (3 mg/l) than in site discharge water (8.4 and 9.1 mg/l) [7].
5/2/86 (FDER)	SW					No discharge was observed. Standing water below the discharge pipe manifested a pH and conductivity of 8.36 and 600 uMho/cm, respectively [8].

Key: v = Violation of Class III Surface Water Standards

Agency: FDER = Florida Department of Environmental Regulation  
 HCEPC = Hillsborough County Environmental Protection Services

Samples: SW = Surface Water

Analysis: MET = Metals  
 P/P = Pesticides/PCB's  
 SVOC = Semi-Volatile Organic Compounds  
 VOC = Volatile Organic Compounds

## REFERENCES

Reference Number	Description of the Reference
1.	Boostani, Hooshang, 11/3/83. Memo to Pedro Hernandez.
2.	Dominic, Henry, 11/19/83. Visit Report.
3.	Florida Department of Environmental Regulation, 1/19/84. Water Quality Report Form.
4.	Florida Department of Environmental Regulation, 3/5/84. Water Quality Report Form.
5.	Florida Department of Environmental Regulation, 8/9/84. Notice of Violation.
6.	Moore, Donald D., 9/18/84. Cast-Crete Mixing Zone Evaluation.
7.	Florida Department of Environmental Regulation, 12/21/84. Trip Report.
8.	Florida Department of Environmental Regulation, 5/2/86. Site Inspection Report.
9.	Feeny, Craig F., 9/25/86. Memo to C. Hill.
10.	Florida Division of Administrative Hearings, 5/3/85. Recommended Order.
11.	Florida Department of Environmental Regulation, 8/9/85. Final Order.
12.	Florida District Court of Appeal, 11/5/85. Initial Brief of Appellant.
13.	Feeny, Craig F., 11/12/86. Conversation Record.
14.	Florida Division of Administrative Hearings, 8/30/85.
15.	Florida Division of Administrative Hearings, 2/7/85.
16.	Florida Division of Administrative Hearings, 1985. Respondent's Proposed Recommended Order.
17.	Menke, C.G.; Meredith, E.W.; and Wetterhall, W.S., 1961. Water Resources of Hillsborough County, USGS Report of Investigations No. 25.

# REFERENCES

PAGE TWO

Reference Number	Description of the Reference
18.	Feeny, Craig, 9/26/86. Memo to Cortland Hill: Wells Around Cast-Crete.
19.	Feeny, Craig, 9/26/86. Memo to Cortland Hill: Dwellings within 3 Miles of Cast-Crete.
20.	SCS Engineers, and Geraghty and Miller, 1986. Investigation of Ground-Water Contamination in the Vicinity of the Hillsborough Heights Landfill.
21.	USEPA, 1984. Uncontrolled Hazardous Waste Site Ranking System: A User's Guide.
22.	Camp Dresser & McGee, Inc., 9/9/86. Draft Report for Taylor Road Site, Seffner, FL. Forward Planning Study.
23.	Feeny, Craig, 10/28/86. Memo to Cortland Hill.
24.	Southwest Florida Water Management District, 12/2/86. Well Construction Permitting: Permit Summary for Year 00 thru 99.

EPA POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT		IDENTIFICATION 01 STATE 02 SITE NUMBER FL D004427662	
<b>II. SITE NAME AND LOCATION</b>			
01 SITE NAME (Legal, common or descriptive name of site) Cast-Crete Corporation of Florida		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER West of SR 579, 3/4 mi. north of I-4	
03 CITY Tampa	04 STATE FL	05 ZIP CODE 33680	06 COUNTY Hillsborough 07 COUNTY CODE 57 08 CONG DIST 7
09 COORDINATES LATITUDE 28 01 02 . 0 LONGITUDE 082 18 13 . 2			
10 DIRECTIONS TO SITE (Starting from nearest public road) Take I-4 to SR 579 and continue north for 3/4 mile. The site is on the left [Fig. 1].			
<b>RESPONSIBLE PARTIES</b>			
01 OWNER (If known) Ralph W. Hughes, President		02 STREET (Business, mailing, residential) Box 11497	
03 CITY Tampa	04 STATE FL	05 ZIP CODE 33680	06 TELEPHONE NUMBER ( )
07 OPERATOR (If known and different from owner) William d. Kardash, V.P. - Manufacturing		08 STREET (Business, mailing, residential) P.O. Box 11497	
09 CITY Tampa	10 STATE FL	11 ZIP CODE 33680	12 TELEPHONE NUMBER
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL _____ F. OTHER: _____ G. UNKNOWN Agency Name _____ (Specify)			
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: _____ B. UNCONTROLLED WASTE SITE (Circle 103 c) <input checked="" type="checkbox"/> C. NONE MONTH DAY YEAR DATE RECEIVED: _____ MONTH DATE YEAR			
<b>IV. CHARACTERIZATION OF POTENTIAL HAZARD</b>			
01 ON SITE INSPECTION BY (Check all that apply) <input checked="" type="checkbox"/> YES DATE _____ A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER MONTH DAY YEAR CONTRACTOR <input type="checkbox"/> NO (see Attachment A) <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input checked="" type="checkbox"/> OTHER: County CONTRACTOR NAME(S): _____ (Specify)			
02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION 1972 Present _____ UNKNOWN BEGINNING YEAR ENDING YEAR	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED Detergent, degreasing solvents and lubricating oil [1,2,5,10] are utilized on-site.			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION - Above substances were discharged to an unlined pond [5] and released to downstream waterways [1,2,10]. The major source of discharge was discontinued [8,9], but on-site contaminants [10] might continue to be discharged via stormwater. Locally unconsolidated sediments generally allow surface recharge to the potentially unconfined Floridan aquifer [20]. Private wells located downgradient [17,20] of the site were free of contamination [18].			
<b>V. PRIORITY ASSESSMENT</b>			
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 3-Description of Conditions) <input type="checkbox"/> A. HIGH <input type="checkbox"/> B. MEDIUM <input checked="" type="checkbox"/> C. LOW <input type="checkbox"/> D. NONE (Inspection required promptly) (Inspection Required) (Inspect on time available basis) (No further action needed, complete disposition form)			
<b>VI. INFORMATION AVAILABLE FROM</b>			
01 Contact Eric S. Nuzie	02 OF (Agency Organization) FDER		03 Telephone Number (904) 487-2776
04 Person Responsible for Assessment Craig F. Feeny	05 Agency FDER	06 Organization BOO	07 Tel. No. (904) 487-2776 08 Date 9 / 30 / 86 Mo. DAY YEAR

EPA

POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 2 -WASTE INFORMATION

## IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D004427662

## II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

## 01 PHYSICAL STATES (Check all that apply)

☐ A. SOLID  
☐ B. POWDER, FINES  
☐ C. SLUDGE  
☒ E. SLURRY  
☒ F. LIQUID  
☐ G. GAS

☐ OTHER \_\_\_\_\_  
 (Specify)

## 02 WASTE QUANTITY AT SITE

(Measures of waste quantities must be independent)

TONS \_\_\_\_\_  
 CUBIC YARDS \_\_\_\_\_  
 NO. OF DRUMS Unknown

## WASTE CHARACTERISTICS

(Check all that apply)

☒ A. TOXIC  
☐ B. CORROSIVE  
☐ C. RADIOACTIVE  
☐ D. PERSISTENT  
☒ E. SOLUBLE  
☐ F. INFECTIOUS  
☐ G. FLAMMABLE  
☐ H. IGNITABLE  
☐ I. HIGHLY VOLATILE  
☐ J. EXPLOSIVE  
☐ K. REACTIVE  
☐ L. INCOMPATIBLE  
☐ M. NOT APPLICABLE

## III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	Unknown		
SOL	SOLVENTS	Unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

## IV HAZARDOUS SUBSTANCES (See appendix for most frequently cited CAS Numbers) N/A

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Detergents		unknown/discharged to holding pond		
	Degreasing solvents		unknown/discharged to holding pond		
	Lubricating oil		unknown/discharged to holding ground		

## V. FEEDSTOCKS (See Appendix for CAS Numbers) N/A

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

## VI. SOURCES OF INFORMATION (Cite specific reference, e.g., state files, sample analysis, reports)

Bureau of Operations, FDER files and attached reference list.

EPA

POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

## PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND ACCIDENTS

## IDENTIFICATION

01 STATE 02 SITE NUMBER  
FL D004427662

## II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED(DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 1-11,400 [19] 04 NARRATIVE DESCRIPTION

Lubricating oil was routinely spilled on-site [1,2,10], and contaminated wastewater containing degreasing solvents/detergents and stormwater runoff was discharged to an unlined pond on-site [5,10]. Unconsolidated local sediments generally allow downward migration of waters to the Floridan aquifer [20], however, no contaminants were found in recently sampled, downgradient [20], private potable wells [18].

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☒ OBSERVED(DATE: 12/21/84) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 1-10 04 NARRATIVE DESCRIPTION

Repeated violations of surface water standards were caused by a continuous, unpermitted discharge of industrial waste [3,5,7] (Attachment A). The major source of discharge was discontinued in 1986 [8,9], but potentially contaminated stormwater might continue to pollute downstream waters. No priority pollutant analyses have been run on samples (Attachment A).

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED(DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Remote potential. No potential sources of air contamination are present on-site.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED(DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Remote potential. With the exception of engine fuel, no ignitable or explosive substances are used on-site.

01 ☐ E. DIRECT CONTACT 02 ☐ OBSERVED(DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

On-site direct contact with potentially hazardous substances is unlikely because the site is fenced [23].

01 ☒ F. CONTAMINATION OF SOIL 02 ☒ OBSERVED(DATE: 11/3/83) [1] ☐ POTENTIAL ☐ ALLEGED  
03 AREA POTENTIALLY AFFECTED: 20(approximately) 04 NARRATIVE DESCRIPTION  
(Acres) [22]

Lubricating oil and degreasing solutions were spilled onto on-site soil [1,2,10].

01 ☒ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED(DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 1-11,400 04 NARRATIVE DESCRIPTION

Within a three-mile radius of the site, at least 213 potable wells are finished in the Floridan aquifer [24]. Downgradient private wells were sampled by FDER [17,20], but no priority pollutants were detected. Future sampling by EPA of additional area wells is planned [18].

01 ☒ H. WORKER EXPOSED/INJURY 02 ☐ OBSERVED(DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 WORKERS POTENTIALLY AFFECTED: Unknown 04 NARRATIVE DESCRIPTION

On-site workers might encounter potentially hazardous solvents and oils on working surfaces or in contaminated soil [1,2,10].

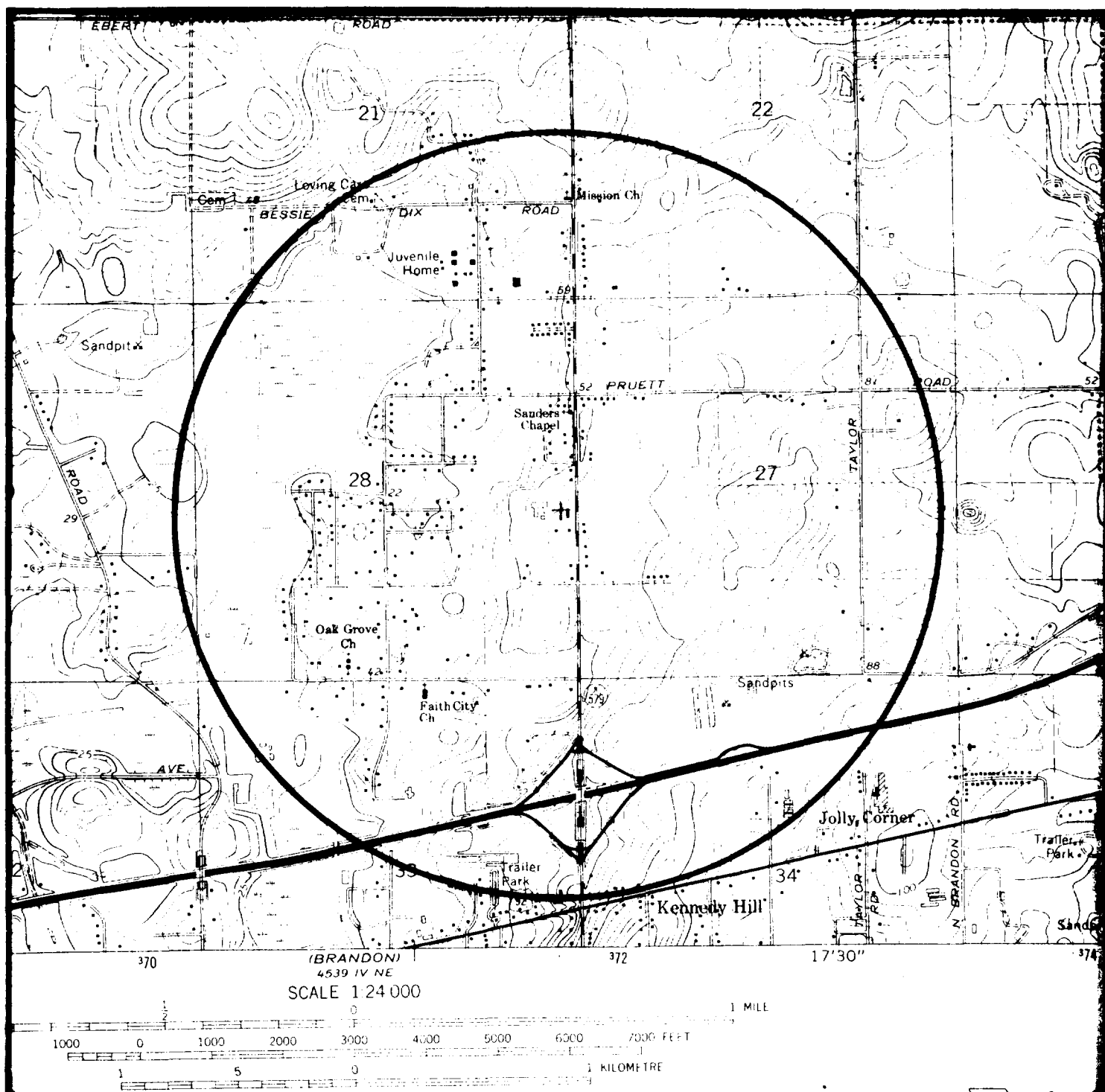
01 ☒ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED(DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: 1-11,400 04 NARRATIVE DESCRIPTION

Potentially contaminated stormwater could continue to pollute downstream water, although the major source of discharge was discontinued [8,9,10]. Leachate from an unlined pond [5] and spilled substances on-site could contaminate groundwater with degreasing solvents/detergents and lubricating oil [1,2,5,10,20]. No downgradient contamination has been detected [18].



EPA		POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT		IDENTIFICATION	
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND ACCIDENTS				01 STATE FL	02 SITE NUMBER D004427662
<b>II. HAZARDOUS CONDITIONS AND INCIDENTS (continued)</b>					
01 <input checked="" type="checkbox"/> J. DAMAGE TO FLORA	02 <input type="checkbox"/> OBSERVED(DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
04 NARRATIVE DESCRIPTION					
Although the area of discharge is heavily vegetated [6], low diversity in aquatic flora and a predominance of blue-green algae suggest that the system is stressed [10]. However, annual dredging of the ditch [10, 12] may cause or contribute to these observations.					
01 <input checked="" type="checkbox"/> K. DAMAGE TO FAUNA	02 <input type="checkbox"/> OBSERVED(DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
04 NARRATIVE DESCRIPTION (Include name(s) of species)					
Indications of stressed flora (see above) imply that aquatic fauna might also have been stressed.					
01 <input type="checkbox"/> L. CONTAMINATION OF FOOD CHAIN	02 <input type="checkbox"/> OBSERVED(DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
04 NARRATIVE DESCRIPTION					
Heavy metals often associated with spent degreasing solvents and waste oil are known to bioaccumulate [1,2,5,10].					
01 <input checked="" type="checkbox"/> M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums)	02 <input checked="" type="checkbox"/> OBSERVED(DATE: 12/21/84) [7]	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
03 POPULATION POTENTIALLY AFFECTED: 1-11,400 04 <input type="checkbox"/> NARRATIVE DESCRIPTION					
Low levels of dissolved oxygen in the discharge area indicated unstable waste containment. High turbidity, conductivity and pH were also detected in site effluent (Attachment A).					
01 <input checked="" type="checkbox"/> N. DAMAGE TO OFFSITE PROPERTY	02 <input type="checkbox"/> OBSERVED(DATE: _____)	<input checked="" type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
04 NARRATIVE DESCRIPTION					
Flora and fauna in state waters might have been damaged by illegal discharges [10].					
01 <input type="checkbox"/> O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs	02 <input type="checkbox"/> OBSERVED(DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
04 NARRATIVE DESCRIPTION					
None reported.					
01 <input type="checkbox"/> P. ILLEGAL/UNAUTHORIZED DUMPING	02 <input type="checkbox"/> OBSERVED(DATE: _____)	<input type="checkbox"/> POTENTIAL	<input type="checkbox"/> ALLEGED		
04 NARRATIVE DESCRIPTION					
None reported.					
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS					
None reported.					
III. TOTAL POPULATION POTENTIALLY AFFECTED: 1-11,400					
IV. COMMENTS					
An unpermitted discharge characterized by high pH, conductivity and turbidity was released to state waters [10] (Attachment A). Degreasing solvents/detergents and lubricating oil were routinely spilled on-site and were probably present in an unlined pond that discharged off-site [1,2,5,10,12]. Stressed aquatic vegetation was documented downstream, but the discharge was discontinued in 1986 [8,9]. No priority pollutants were detected in downgradient private wells, and additional sampling is planned for area wells [18]. No priority pollutant analyses were performed on surface water samples (Attachment A).					
V. SOURCES OF INFORMATION (Cite specific reference, e.g., state files, sample analysis, reports)					
FDER, Bureau of Operations file.					

Fig. 1



1:24000

0 1 2 1 MILE

N

# SITE LOCATION MAP

Cast-Crete Corp. of Florida  
 3/4 mi. N. of I-Y/W. of SR 579  
 Tampa, Florida  
 USGS QUAD Thonotosassa, FL  
 DATE: 1974

COUNTY



OF HILLSBOROUGH

NOV 8 1983

SOUTHWEST DISTRICT  
TAMPAMEMORANDUMDate November 3, 1983To Pedro Hernandez, FDERFrom H.B. Hooshang Boostani, EPCSubject: Cast-Crete Corporation of Florida

On November 2, 1983, I made an inspection of the subject facility located on State Road 579, 1 mile north of I-4. Cast-Crete is a concrete product manufacturer. Items such as reinforced beams, columns, pipe supports and etc. are produced in an open area. Usage of some lubricating oil facilitates the removal of the product from the confining forms. Concrete mix is produced by a concrete batch plant.

Wastewater generated by this operation comes from the following operations:

1. Storm water run-off that has come in contact with the oily form and cement dust that is scattered all over the area.
2. Overflow from concrete truck wash-out pits.
3. Steam-cleaning of the engines of heavy equipment, organic solvents and detergents are two important constituents of this stream.
4. Effluent from a domestic treatment plant which is used for spraying over the piles of aggregates.

All the above mentioned wastewater streams are directed into a pond (pit) located in the northwest corner of the property from which it discharges into a County ditch and eventually into the Six Mile Creek. Previously analysed samples show that the values for Ph, oil and grease and turbidity in the discharge exceed the ones set forth in 17-3 F.A.C.

In my opinion Cast-Crete must be required to:

1. Apply for a construction permit to install a treatment unit for treatment of the waste prior to discharging into the pond.
2. Discharge from the pond must be analysed for determination of organic compound concentration, oil & grease, turbidity, heavy metal.

3. Discharge from the pond must meet the standards set forth by 17-3 F.A.C.
4. Cast-Crete must comply with ground water monitoring rules. During the meeting that I had with Mr. Bill Kardash of Cast-Crete, he stated that they do not think that their wastewater is detrimental to the environment and therefore, they will not apply for any industrial wastewater permit. He also stated that that was their final position in regard to permitting.

Based on the above-mentioned observations and discussions, I recommend the following:

1. An inspection of the facility be conducted by DER.
2. Inform the company of the findings and advise the management of its options (compliance with rules by the company or initiation of enforcement action by DER.)

dr

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

NOV 26 1986

BUREAU OF  
OPERATIONS

BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



November 18, 1986

Mr. Henry Dominic  
Department of Environmental  
Regulation, Southwest District  
7601 Highway, 301 North  
Tampa, Florida 33610

Dear Henry:

I have enclosed the 12/19/83 Visit Report that we discussed.  
Please, let me know if you are the author. Thanks.

Sincerely,

Craig F. Feeny  
Environmental Specialist  
Bureau of Operations

CFF/mlr

Enclosure

*Yes, I can. Let me know if I can  
help further.*

*Henry Dominic  
11/24/1986*

C VISIT P- -

December 19<sup>th</sup>, 1983

CAST CRETE

Steam Cleaning of the engines of heavy equipment is accomplished sporadically. Organic solvents and detergents are used in this cleaning operation. Some condensate deposits on the ground and is washed away with rain runoff.

There are 3 treatment lanes for reinforced beams etc. There is no wastewater generated by this operation. On top of a pile next to this treatment operation, there were many splashes of oil. Mr. Kardash said that this probably came from ~~the~~ a construction operation that has already been completed and was therefore only a one-time occurrence.

The exterior washing of trucks is done outside and this used wash water flows over land downgradient to the walls at the property line and into the ponds at opposite corners.

The interior washing of concrete trucks occurs at a raised cement platform next to a large open container full of water. There ~~is~~ <sup>is</sup>

(2)

a set of tracks that runs through the water. The water is run into the inside of the cement storage tank on the truck and this water is piped and then released back into the wash water container. There are pipes on the side of the wash water container for emptying it when needed. This is never done, however, said Mr. Kardash except maybe once every three years.

about 100 ft down (settling treatment)

There are two small side-by-side basins for settling the solids settle out each about 10' x 30'. The water from the top then can naturally flow out and into a ~~basin~~ pipeline going down into the settling pond where a discharge at the edge of the property.

There are two holding ponds, one opposite corner of the back property line, the right pond has an overflow into a County Ditch and the left pond has no overflow and discharges only by percolation and/or evaporation. According to Mr. Kardash, it is mostly clear water that goes to the left pond.

Mr. Hughes, the company president, asked for my opinion. I told him past analyses have shown out-of-spec values for turbidity, pH, and Oil & Grease. I think he needs a

more retention time and thus more time for the solids to settle out. I think this would also help the pH-values. I told him that in filling out the application form he would automatically generate the information he needs i.e. effluent characteristics (BOD analyses) etc. ~~It~~ Should the effluent characteristics be within the specs, he would apply for an operating permit. If his water is out-of-spec, he'll need to apply for a construction permit to construct the necessary pollution control facilities. His professional engineer would design the proper facilities.

Mr. Hughes said he will not apply for a permit because he sincerely believes he is not harming the environment. He says minnows swim in the County ditch that he is discharging into and the vegetation is healthy. He says the ~~water~~ water might not show a turbidity of 29, but it is reasonably clear enough. He says if we don't make zoo stations apply for permits we should leave him alone too, and that it's unfair if we don't. He says the law doesn't differentiate between the small discharge and the large discharge so we have no right to either.

It's an additional point, I observed that in applying an oil/gasoline



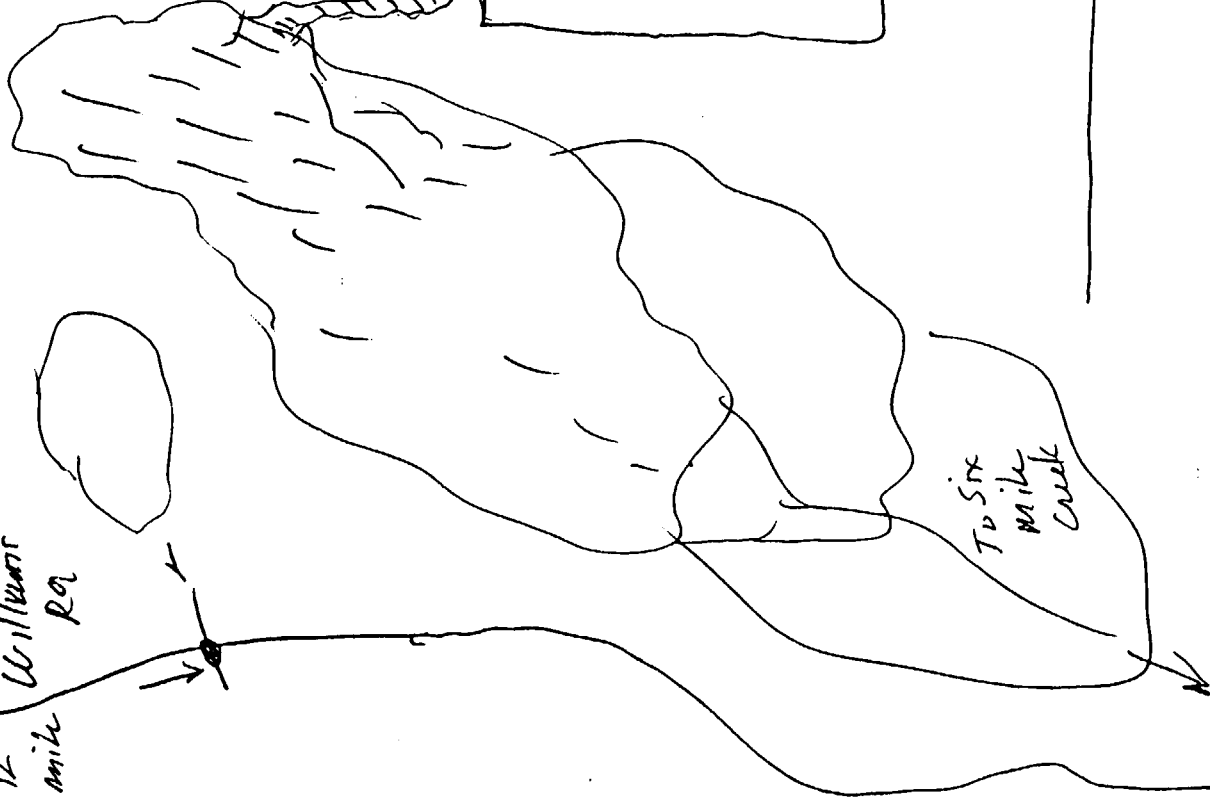
(4)

mixture to the tanks for use as a separating agent. It was allowed to spill on the ~~floor~~ floor/ground. This separating agent also dripped from its storage/dispensing barrels onto the ground/flooring.

C. - Elbert Rd

↑ N

1/2 mile  
Williams  
Rd



Black Dany Rd

(dirted)

Gate

ditch

~~Gate~~ to

579

5/19/6

I-4

Kardool

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
WATER QUALITY REPORT FORM

Reference 3

3

AGENCY 40	STATION	DATE 1-19-84
--------------	---------	-----------------

1500	
TIME & COMPOSITE SAMPLE	
COMP	BEQW
	END

DEPTH Ft.

0.0

SOUTHWEST DISTRICT LABORATORY  
7601 Highway 301 North  
Tampa, FL 33610

REMARKS \* pH read after rearming in lab on 1/23/84  
Background sample - Williams  
Rd - South of Joe Ebert Rd.

LOCATION

D.E.E.  
Cast - Crest

County-

Hills

PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	6097	BOD	Mg/L	310	
Temp. Water	Deg. C	10		BOD INF	Mg/L	50080	
pH Field	Std unit	400		BOD EFF	Mg/L	50084	
DO Probe	Mg/L	299		Removal BOD	%	81010	
Secchi Transparency	M	78		Color	PT-CO	80	
Cl <sub>2</sub> Total	Mg/L	50060		RES Total	Mg/L	500	
Flow	MGD	50050		Chlorophyll a	ug/L	32210	
Velocity	Ft/sec	55		NO <sub>2</sub> -NO <sub>3</sub>	Mg/L	630	
Coli TOT MF	#/100 ml	31501		NO <sub>2</sub>	Mg/L	615	
Fecal Coli	#/100 ml	31616		NO <sub>3</sub>	Mg/L	620	
pH Lab *	Std unit	403	4.9	NH <sub>3</sub>	Mg/L	610	
Cond	uMho/cm	95	90	TKN	Mg/L	625	
F Total	Mg/L	951		N Total	Mg/L	600	
Chloride	Mg/L	940		Organic N	Mg/L	605	
Turbidity	NTU	82078	2	P Total	Mg/L	665	
Turbidity	JTU	70		DO Lab	Mg/L	300	
RES Susp	Mg/L	530					
RES Susp INF	Mg/L	900145					
RES Susp EFF	Mg/L	900146					
Removal RES SUSP	%	81011					
SAMPLE TAKEN BY: Barry / Bramlett				Agency Code		CODE	28 40
REPORT PREPARED BY: J Crawford 1/23/84				REPORT VERIFIED BY: A. Pohn 1-25-84			

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
WATER QUALITY REPORT FORM

FILE - 0915

AGENCY 40	STATION	DATE 1-19-84	TIME A - GRAB SAMPLE 0915	DEPTH Ft. 0.0
			TIME B COMPOSITE SAMPLE	
			COMP	END

SOUTHWEST DISTRICT LABORATORY  
7601 Highway 301 North  
Tampa, FL 33610

REMARKS Pond discharge * K = less than				LOCATION D.E.B. Cast - Cretc County - Hills.			
PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	6096	BOD	Mg/L	310	
Temp. Water	Deg. C	10		BOD INF	Mg/L	50080	
pH Field	Std unit	400		BOD EFF	Mg/L	50084	
DO Probe	Mg/L	299		Removal BOD	%	81010	
Secchi Transparency	M	78		Color	PT-CO	80	
Cl <sub>2</sub> Total	Mg/L	50060		RES Total	Mg/L	500	
Flow	MGD	50050		Chlorophyll a	ug/L	32210	
Velocity	Ft/sec	55		NO <sub>2</sub> -NO <sub>3</sub>	Mg/L	630	
Coli TOT MF	#/100 ml	31501		NO <sub>2</sub>	Mg/L	615	
Fecal Coli	#/100 ml	31616		NO <sub>3</sub>	Mg/L	620	
pH Lab	Std unit	403	11.9	NH <sub>3</sub>	Mg/L	610	
Cond	uMho/cm	95	2000	TKN	Mg/L	625	
F Total	Mg/L	951		N Total	Mg/L	600	
Chloride	Mg/L	940		Organic N	Mg/L	605	
Turbidity	NTU	82078	30	P Total	Mg/L	665	
Turbidity	JTU	70		DO Lab	Mg/L	300	
RES Susp	Mg/L	530		oil + grease *			5K
RES Susp INF	Mg/L	900145					
RES Susp EFF	Mg/L	900146					
Removal RES SUSP	%	81011					
SAMPLE TAKEN BY: Berry / Bramlett				Agency Code		CODE	28 40
REPORT PREPARED BY: B. Quinn 1/31/84				REPORT VERIFIED BY: P. Lash 1-1-84			

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
WATER QUALITY REPORT FORM

Reference 4

AGENCY 40	STATION	DATE 3-5-84
--------------	---------	----------------

1545		DEPTH Ft. 0.0
TIME & COMPOSITE SAMPLE		
COMP	BODIM	
	IND	

SOUTHWEST DISTRICT LABORATORY  
7601 Highway 301 North  
Tampa, FL 33610

REMARKS Williams Rd - nearby unaffected stream				LOCATION Cast Creta County - Hills			
PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	6224	BOD	Mg/L	310	
Temp. Water	Deg. C	10		BOD INF	Mg/L	50080	
pH Field	Std unit	400		BOD EFF	Mg/L	50084	
DO Probe	Mg/L	299		Removal BOD	%	81010	
Secchi Transparency	M	78		Color	PT-CO	80	
Cl <sub>2</sub> Total	Mg/L	50060		RES Total	Mg/L	500	
Flow	MGD	50050		Chlorophyll a	ug/L	32210	
Velocity	Ft/sec	55		NO <sub>2</sub> -NO <sub>3</sub>	Mg/L	630	
Coli TOT MF	#/100 ml	31501		NO <sub>2</sub>	Mg/L	615	
Fecal Coli	#/100 ml	31616		NO <sub>3</sub>	Mg/L	620	
pH Lab	Std unit	403	4.60	NH <sub>3</sub>	Mg/L	610	
Cond	uMho/cm	95	100	TKN	Mg/L	625	
F Total	Mg/L	951		N Total	Mg/L	600	
Chloride	Mg/L	940		Organic N	Mg/L	605	
Turbidity	NTU	82078		P Total	Mg/L	665	
Turbidity	NTU	70		DO Lab	Mg/L	300	
RES Susp	Mg/L	530					
RES Susp INF	Mg/L	900145					
RES Susp EFF	Mg/L	900146					
Removal RES SUSP	%	81011					
SAMPLE TAKEN BY: Andy Berry				Agency Code		CODE	28
REPORT PREPARED BY: J. Crawford 3/6/84				REPORT VERIFIED BY: A. Paden 3-6-84		40	

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
WATER QUALITY REPORT FORM

AGENCY 40	STATION	DATE 3-5-84
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SOUTHWEST DISTRICT LABORATORY  
7601 Highway 301 North  
Tampa, FL 33610

TIME A - GRAB SAMPLE 1530	
TIME B - COMPOSITE SAMPLE	
COMP	BEGIN END

DEPTH Ft.  
0.0

REMARKS Discharge				LOCATION CAST CRETE County- HILLS			
PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	6223	BOD	Mg/L	310	
Temp. Water	Deg. C	10		BOD INF	Mg/L	50080	
pH Field	Std unit	400		BOD EFF	Mg/L	50084	
DO Probe	Mg/L	299		Removal BOD	%	81010	
Secchi Transparency	M	78		Color	PT-CO	80	
Cl <sub>2</sub> Total	Mg/L	50060		RES Total	Mg/L	500	
Flow	MGD	50050		Chlorophyll a	ug/L	32210	
Velocity	Ft/sec	55		NO <sub>2</sub> -NO <sub>3</sub>	Mg/L	630	
Coli TOT MF	#/100 ml	31501		NO <sub>2</sub>	Mg/L	615	
Fecal Coli	#/100 ml	31616		NO <sub>3</sub>	Mg/L	620	
pH Lab	Std unit	403	10.85	NH <sub>3</sub>	Mg/L	610	
Cond	uMho/cm	95	1,100	TKN	Mg/L	625	
F Total	Mg/L	951		N Total	Mg/L	600	
Chloride	Mg/L	940		Organic N	Mg/L	605	
Turbidity	NTU	82078		P Total	Mg/L	665	
Turbidity	JTU	70		DO Lab	Mg/L	300	
RES Susp	Mg/L	530					
RES Susp INF	Mg/L	900145					
RES Susp EFF	Mg/L	900146					
Removal RES SUSP	%	81011					
SAMPLE TAKEN BY: Andy Barry				Agency Code		CODE	28
REPORT PREPARED BY: S Crawford 3/6/84				REPORT VERIFIED BY: A. Padua 3-6-84		40	

4-8-84

Reference 5

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATIONSTATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION,

Complainant,

vs.

CAST-CRETE CORPORATION OF  
FLORIDA,

Respondent.

IN

South

OGC

NOTICE OF VIOLATION  
ORDERS FOR CORRECTIVE ACTION

To:

Ralph W. Hughes, Pres  
Cast-Crete Corporation  
P.O. Box 11497  
Tampa, Florida 33680

Certified Mail Number,

NOV#84-0153

Pursuant to the authority of Section 403.121(2), Florida Statutes, and Florida Administrative Code Rule 17-1.58(1), the State of Florida Department of Environmental Regulation ("Department"), gives notice to Cast-Crete Corporation of Florida ("Respondent"), of the following findings of fact and conclusions of law with respect to violations of Chapter 403, Florida Statutes:

Findings of Fact

## Paragraphs Applicable to All Counts

1. The Department is the administrative agency of the State of Florida which has the authority to administer and enforce the provisions of Chapter 403, Florida Statutes, and the rules promulgated thereunder, Florida Administrative Code, Chapter 17.
2. Respondent's property (hereinafter "the property") is located on the west side of State Road 579, 3/4 mile north of Interstate 4, Section 28, Township 28 South, Range 20 East, Hillsborough County, Florida.
3. Respondent operates a concrete batch plant and manufactures concrete products such as reinforced beams, lintels, sills, and drainage structures on the property. Respondent uses lubricating oil to facilitate the removal of the product from the confining forms.
4. Industrial wastewater contaminated with lubricating oil, lime, concrete, cement and other materials from various activities on Respondent's site flows to an unlined holding pond in the northwest corner of the

NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to	
Ralph W. Hughes, Pres.	
Cast-Crete Corporation	
P.O. Box 11497	
Tampa, FL 33680	
Postage	\$2.23
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$2.23
Postmark or Date	
Mailed 4/10/84	
IW/NOV	

PS Form 3800, Feb. 1982

RETURN RECEIPT

\* GPO: 1982-379-593

property. The industrial wastewater from the pond is discharged off the property, via a concrete flume, into a drainage ditch and then into waters of the State (as defined by Section 403.031(3), Florida Statutes). The water is Class III water as defined in Florida Administrative Code Rule 17-3.161.

5. Respondent's holding pond constitutes a stationary installation which will reasonably be expected to be a source of pollution to both ground and surface waters of the State.

6. The Department and the Hillsborough County Environmental Protection Commission (EPC) performed numerous inspections of Respondent's site and associated discharge beginning in December 1979 and continuing to the present.

7. The Department previously informed Respondent of its belief that Respondent was in violation of Chapter 403, Florida Statutes, and the rules promulgated thereunder by Warning Notice #29-83-11-417 dated November 22, 1983 (attached hereto as Exhibit "A").

8. An informal conference was held on December 12, 1983, between the Department and Respondent in an attempt to resolve the issue. The Department again informed Respondent of its belief that Respondent was in violation of Chapter 403, Florida Statutes, and the rules promulgated thereunder by a letter dated January 25, 1984 (attached hereto as Exhibit "B").

#### Count I

9. Analysis of samples of industrial wastewater discharged from the property collected from the concrete flume by the Environmental Protection Commission (EPC) showed the following concentrations of oil and grease on the following dates:

August 28, 1981	14 mg/l
May 26, 1982	12 mg/l

#### COUNT II

10. Analysis of samples of industrial wastewater discharged from the property collected from the concrete flume by the Department showed the following pH values on the following dates:

January 12, 1984	11.3 units
January 19, 1984	11.9 units (natural background on January 19, 1984 was 4.9 units)
March 5, 1984	10.85 units (natural background on March 5, 1984 was 4.6 units)

#### COUNT III

11. Analysis of samples of industrial wastewater discharged from the property collected from the concrete flume by the Department showed the



following specific conductance values on the following dates:

January 19, 1984	2000 micromhos/cm (natural background on January 19, 1984 was 90 micromhos/cm)
March 5, 1984	1100 micromhos/cm (natural background on March 5, 1984 was 100 micromhos/cm)

#### COUNT IV

12. Analysis of samples of industrial wastewater discharged from the property collected from the concrete flume by the Department showed a turbidity value of 59 NTU on January 12, 1984 with a natural background of 2 NTU.

#### COUNT V

13. Respondent operates and maintains an industrial wastewater pond which will reasonably be expected to be a source of pollution without an appropriate and currently valid permit issued by the Department.

#### COUNT VI

14. The Department has incurred costs and expenses while investigating this matter.

#### Conclusions of Law

The Counts enumerated in the Findings of Fact have been evaluated with regard to the requirements of Sections 403.087(1), 403.141(1) and 403.161(1)(b), Florida Statutes, and Florida Administrative Code Rules 17-3.061(2) and 17-4.03, copies of which are attached to this notice as Exhibit "C". Based on the foregoing facts, the Department has made the following conclusions of law:

15. The facts related in Count I constitute a violation of Florida Administrative Code Rule 17-3.061(2)(k), which states that dissolved or emulsified oils and greases shall not exceed 5.0 milligrams per liter. The facts related in Count I, therefore, also constitute a violation of Section 403.161(1)(b), Florida Statutes, which makes it a violation of Chapter 403, Florida Statutes, to violate or fail to comply with any rule or regulation adopted or issued by the Department.

16. The facts related in Count II constitute a violation of Florida Administrative Code Rule 17-3.061(2)(l), which states that pH shall not vary more than one unit above natural background provided that the pH is not raised above 8.5 units. If the natural background is less than 6 units, the pH shall not vary more than one unit above natural background. The facts related in Count II, therefore, also constitute a violation of Section

403.161(1)(b), Florida Statutes, which makes it a violation of Chapter 403, Florida Statutes, to violate or fail to comply with any rule or regulation adopted or issued by the Department.

17. The facts related in Count III constitute a violation of Florida Administrative Code Rule 17-3.061(2)(o), which states that specific conductance shall not be increased more than 100% above background levels or to a maximum level of 500 micromhos per centimeter in surface waters in which the specific conductance of the water at the surface is less than 500 micromhos per centimeter. The facts related in Count III, therefore, also constitute a violation of Section 403.161(1)(b), Florida Statutes, which makes it a violation of Chapter 403, Florida Statutes, to violate or fail to comply with any rule or regulation adopted or issued by the Department.

18. The facts related in Count IV constitute a violation of Florida Administrative Code Rule 17-3.061(2)(r), which states that turbidity shall not exceed 29 Nephelometric Turbidity Units (NTU's) above natural background. The facts related in Count IV, therefore, also constitute a violation of Section 403.161(1)(b), Florida Statutes, which makes it a violation of Chapter 403, Florida Statutes, to violate or fail to comply with any rule or regulation adopted or issued by the Department.

19. The facts related in Count V constitute a violation of Section 403.087(1), Florida Statutes, and Florida Administrative Code Rule 17-4.03, which state that any stationary installation which will reasonably be expected to be a source of pollution shall not be operated, maintained, constructed, expanded, or modified without an appropriate and currently valid permit issued by the Department. The facts related in Count V, therefore, also constitute a violation of Section 403.161(1)(b), Florida Statutes, which makes it a violation of Chapter 403, Florida Statutes, to fail to obtain any permit required by Chapter 403 or Department rule.

20. The costs and expenses related in Count VI are recoverable pursuant to Section 403.141(1), Florida Statutes.

#### Orders for Corrective Action

The Department has alleged that the activities related in the Findings of Facts constitute violations of Florida law. The Orders for Corrective Action state what you, Respondent, must do in order to correct and redress the violations alleged in this Notice. The Department has determined that

the following corrective actions are reasonable and can be accomplished within the time periods indicated.

The Department will adopt the Orders for Corrective Action as part of its Final Order in this case unless Respondent performs the indicated actions within the allotted time. If Respondent fails to comply with the corrective actions ordered by the Final Order, the Department will be required to file suit seeking judicial enforcement of the Department's order pursuant to Section 120.69 and 403.131, Florida Statutes.

Pursuant to the authority of Sections 403.061(8) and 403.121, Florida Statutes, and Florida Administrative Code Rule 17-1.58, the Department proposes to adopt in its Final Order in this case the following specific corrective actions which will redress the alleged violations:

1. Respondent shall submit a complete application to operate an industrial wastewater treatment system within thirty (30) days from the entry of these Orders.

2. If the Department does not issue a permit to operate an industrial wastewater treatment system, Respondent shall immediately cease all discharges to surface water and groundwater.

3. Respondent shall submit to the Department a groundwater monitoring plan for the property within sixty (60) days from entry of these Orders. The plan shall be developed pursuant to the requirements of Florida Administrative Code Rule 17-4.245 and prepared by a qualified hydrogeologist. The Department shall review Respondent's groundwater monitoring plan for any deficiencies, and shall approve the plan, with modifications if necessary.

4. Within thirty (30) days from the date the plan is approved by the Department, Respondent shall implement the approved monitoring plan and sample the groundwater for the primary and secondary drinking water quality standards for public water systems established pursuant to the Florida Safe Drinking Water Act, which are listed in Florida Administrative Code rule 17-22.104. After initial sampling, Respondent shall continue to sample for the above parameters every six (6) months. Respondent shall submit to the Department results of all sampling within ten (10) days after Respondent or its agent receives the results.

5. During periods of discharge of wastewater off the property, Respondent shall sample the discharge for the following parameters:

pH

Oil and grease

Specific conductance

Turbidity

Dissolved Oxygen

The results of this sampling shall be submitted to the Department within ten (10) days after Respondent or its agent receives the results.

6. If the Department determines that Respondent has violated State water quality standards, Respondent shall immediately cease all discharges of wastewater off the property.

7. If the groundwater monitoring samples reveal violations of State water quality standards, Respondent shall immediately cease all discharges of wastewater to groundwater, and submit to the Department a plan to clean up any and all groundwater contaminated by Respondent. The Department shall review Respondent's plan for any deficiencies, and shall approve the plan with modifications if necessary. Within ninety (90) days from the date the plan is approved by the Department, Respondent shall implement the approved cleanup plan.

NOTICE OF RIGHTS  
RESPONSIVE PLEADING, INFORMAL CONFERENCE, HEARING,  
WAIVER, SANCTION, JUDICIAL RELIEF

1. Respondent has the right to a formal administrative hearing pursuant to Section 120.57(1), Florida Statutes, if Respondent disputes issues of material fact raised by this Notice of Violation and Orders for Corrective Action ("Notice"). At a formal hearing, Respondent will have the opportunity to be represented by counsel, to present evidence and argument on all issues involved, to conduct cross-examination and submit rebuttal evidence, to submit proposed findings of fact and orders and to file exception to any order or hearing officer's recommended order.

2. Respondent has the right to an informal administrative proceeding pursuant to Section 120.57(2), Florida Statutes, if Respondent does not dispute issues of material fact raised by this Notice. If an informal proceeding is held, Respondent will have the opportunity to be represented by counsel, to present to the agency written or oral evidence in opposition to the Department's proposed action, or to present a written statement challenging the grounds upon which the Department is justifying its proposed action.

3. Respondent may request an informal conference with the Department pursuant to Florida Administrative Code Rule 17-1.53 in order to resolve this matter promptly and amicably. Respondent's rights will not be adjudicated at an informal conference, and the right to a formal hearing or informal proceeding will not be affected by requesting and participating in an informal conference.

4. If Respondent desires a formal hearing or an informal proceeding, Respondent must file a written responsive pleading entitled "Petition for Administrative Proceeding" within twenty days of receipt of this Notice. The petition must be in the form required by Florida Administrative Code Chapter 17 and by Florida Administrative Code Rule 28-5.201. A petition is filed when it is received by the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. A petition must specifically request a formal hearing or an informal proceeding, it must admit or deny each Finding of Fact

of this Notice, and it must state any defenses upon which Respondent relies. If Respondent lacks knowledge of a particular allegation, Respondent must so state, and that statement will operate as a denial.

5. If Respondent desires an informal conference, Respondent must file a written "Request for Informal Conference" within ten days of receipt of this Notice. The request must be made to the person indicated on the last page of this Notice. The informal conference will be held within ten days of receipt of the request. If no resolution of this matter results from the informal conference, Respondent has the right to file a petition for a formal hearing or informal proceeding within ten days of the date the conference was held.

6. Respondent will waive the right to a formal hearing or an informal proceeding if a petition is not filed with the Department within twenty days of receipt of this Notice or within ten days of the date of an informal conference if one is held. These time limits may be varied only by written consent of the Department.

7. The allegations of this Notice will be adopted by the Department in a Final order if Respondent fails to comply with the Orders for Corrective Action and fails to timely file a petition for a formal hearing or informal proceeding, pursuant to Section 403.121 (403.860), Florida Statutes, and Florida Administrative Code Rule 17-1.58. A Final order will constitute a full and final adjudication of the matters alleged in the Notice of Violation and Orders for Corrective Action.

8. If Respondent fails to comply with the Final Order, the Department will file suit in circuit court seeking a mandatory injunction to compel compliance with the Order, pursuant to Sections 120.69 and 403.131 (403.860), Florida Statutes. The Department may also seek to recover damages, all costs of litigation including reasonable attorney's fees and expert witness fees, and civil penalties (a fine) of not more than \$10,000 per day for each day that Respondent has failed to comply with the Final Order.

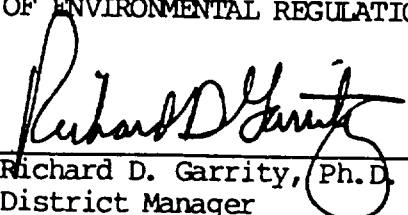
9. Litigation will be avoided if Respondent immediately complies with the Orders for Corrective Action. This matter may also be resolved if the Department and Respondent enter into a Consent Order, in accordance with Florida Administrative Code Rule 17-1.58(3), upon such terms and conditions as may be mutually agreeable.

10. The Department is not barred by the issuance of this Notice from maintaining an independent action in circuit court with respect to the alleged

violations. If such action is warranted, the Department may seek injunctive relief, damages, civil penalties (a fine) of not more than \$10,000 per day, and all costs of litigation.

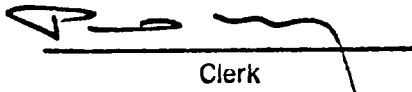
DATED this 8 day of April, 1984.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

  
Richard D. Garrity, Ph.D.  
District Manager  
Southwest District  
7601 Highway 301 North  
Tampa, Florida 33610

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 (9),  
Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

  
Clerk

4/9/84  
Date

Direct answer and request for an administrative hearing to:

DAN THOMPSON  
Assistant General Counsel  
State of Florida Department  
of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301  
Telephone: (904) 488-9730

Direct request for an informal conference to:

RICHARD D. GARRITY, Ph.D.  
District Manager  
Southwest District Office  
State of Florida Department  
of Environmental Regulation  
7601 Highway 301 North  
Tampa, Florida 33610-9544  
Telephone: (813) 985-7402



State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
INTEROFFICE MEMORANDUM

And/or to Other than the Addressee		
To: _____	Locn: _____	
To: _____	Locn: _____	
To: _____	Locn: _____	
From: _____	Date: _____	
Reply Optional <input type="checkbox"/>	Reply Required <input type="checkbox"/>	Info. Only <input type="checkbox"/>
Date Due: _____	Date Due: _____	

TO: Henry Dominick  
FROM: Donald D. Moores *DDM*  
DATE: September 18, 1984  
SUBJECT: Cast-Crete Mixing Zone Evaluation

On August 7, 1984, members of the district lab staff made a visual inspection of the receiving waters at Cast-Crete, and on August 10 we conducted sampling. The receiving water is a drainage canal, and is heavily vegetated with a variety of aquatic vegetation, indicating more-or-less perpetual inundation. While many of the vegetational species present are of the varieties ordinarily associated with nursery areas, we saw nothing to indicate, at least in the potential mixing zone, that the canal was actually functioning as a nursery area. Consequently, we would have no objection to allowing a mixing zone area in the canal.

Unfortunately, the total length of the canal from the Cast-Crete point-of-discharge where it apparently originates, to the point where it enters the natural wetlands is probably not more than 500 meters: we were unable to obtain exact measurements in the field or from any maps currently on file in our office. In accordance with Section 17-4.244(1)(h)1., F.A.C., the maximum allowable mixing zone would be approximately 50 meters, and this would be expended before the canal reached its crossing of Black Dairy Road.

Based on our August 10 sampling results, pH and conductivity standards were both being violated in the receiving waters. Conductivity was still in excess of the standard well beyond the maximum potential mixing zone.

DDM/jdj

Attachments



TRIP REPORT

DATE: 12-21-84

NAME OF TRAVELER: J. Guccardo + A. Briny

FROM: office

TO: Cast-Crete Discharge - Hills Co.

TIME OF DEPARTURE: AM

DATE: 12-21-84

TIME OF RETURN: AM

DATE: 12-21-84

METHOD OF TRAVEL: state vehicle

CHARGE TO: 1225

PURPOSE OF TRIP: D.O. samples

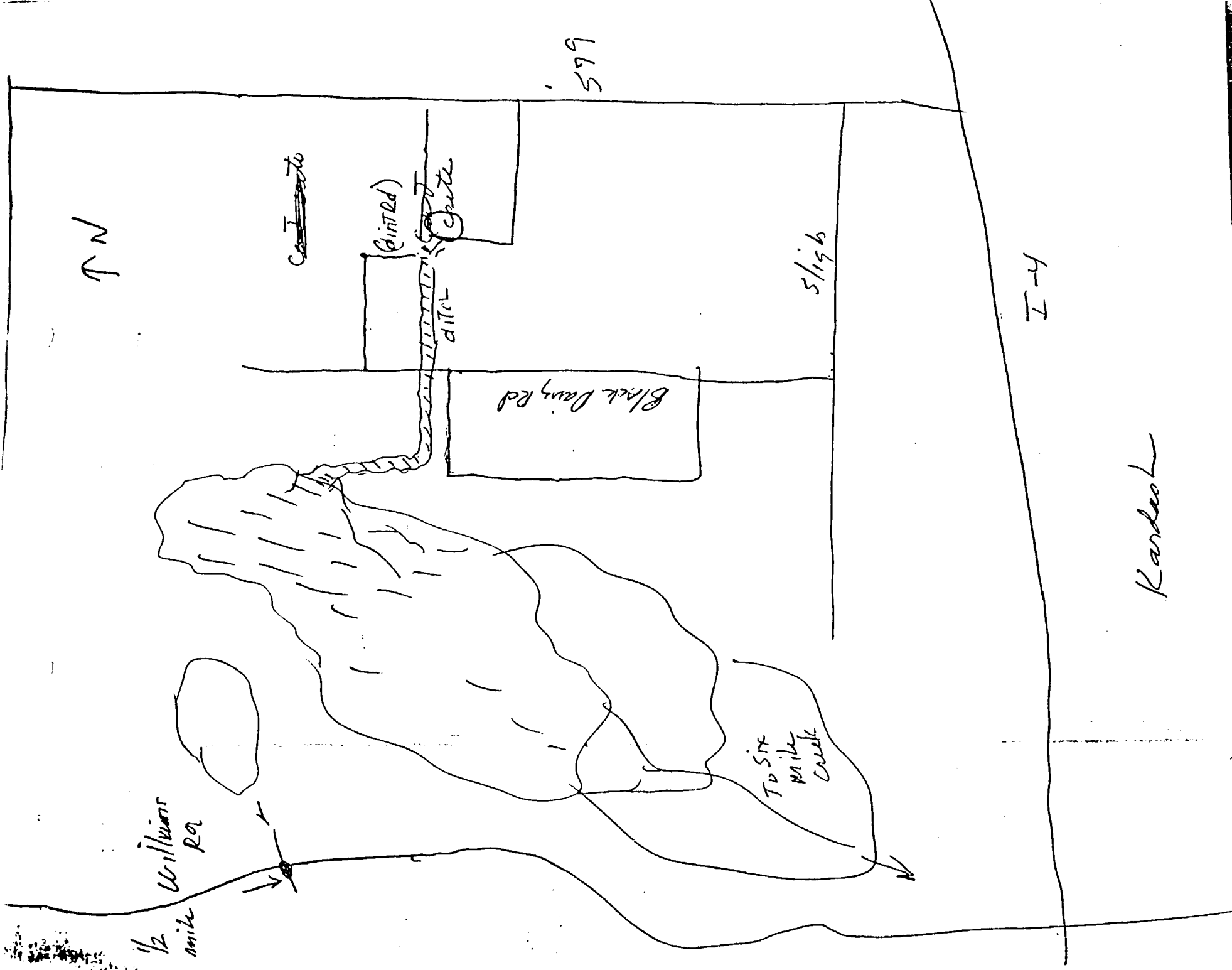
PERSONS CONTACTED: none

REMARKS: took 2 D.O. samples + sampled for toxic D.O. readings using meter

LIST NAME OF PERSON(S) ALSO TRAVELING ON TRIP: none

12-21-84 Cast - Cete  
Andy Beary - Tom Gucciarulo

Sample	Time	Bob active	Field d.o.
3 of Fume	9:25	49	8.4
End of Culvert	9:35	38	9.1
East side Bk. during AD	9:50	—	3.0



Kardool

DEPARTMENT OF ENVIRONMENTAL REGULATION  
WATER QUALITY REPORT FORM

Tom Gucciardo  
12-21-84  
Cassville  
Ind. West  
Hills

Agency 40	STATION	DATE 12-21-84	Time A-Grab Sample 9:25 AM
lat.	long.		
SOUTHWEST DISTRICT CHEMICAL LABORATORY 7601 Highway 301 North Tampa, FL 33610		COMP	Begin End Salt Wtr. Fresh Wtr. Depth

REMARKS

CAST-CRETE  
BOTTLE # 49

LOCATION

END OF RUMBLE

COUNTY HILLSBOROUGH

PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	6860	BOD	MG/L	310	
Temp. Water	Deg. C	10		BOD INF	MG/L	50080	
pH Field	Std. Unt	400		BOD EFF	MG/L	50084	
DO Probe	MG/L	299	FIELD 8.4	Removal BOD	%	81010	
SECCHI M	M	78		Chlorophyll a	UG/L	32210	
Transparency				Chlor a corr	UG/L	32211	
Cl2 Total	MG/L	50060		phaeophytin			
Flow	MGD	50050		NO2-NO3-N	MG/L	630	
Velocity	FT/SEC	55		NO2-N	MG/L	615	
Coli TOT MF	#/100ml	31501		NO3-N	MG/L	620	
Fecal Coli	#/100ml	31616		NH3-N	MG/L	610	
pH Lab	STD UNIT	403		TKN	MG/L	625	
COND	UMHO/CM	95		N Total	MG/L	600	
DO Lab	MG/L	300	8.3	Organic N	MG/L	605	
Color	PT-CO	80		P Total	MG/L	665	
Turbidity	NTU	76		F Total	MG/L	951	
RES Total	MG/L	500		Chloride	MG/L	940	
RES Susp(TSS)	MG/L	530		Sulfate	MG/L	945	
RES Susp INF	MG/L	900145		Chlorophyll b	UG/L	32212	
RES Susp EF	MG/L	900146		Chlorophyll c	UG/L	32214	
Removal	%	81011					
RES Susp							
AGENCY CODE	CODE	28	40				

SAMPLE TAKEN BY:

BERRY / GUCCIARDO / ENF.

REPORT PREPARED BY:

A. P. [Signature] 12/21/84

Date:

REPORT VERIFIED BY:

G. [Signature] 12/26/84

Date:

UNCONFIRMED

DEPARTMENT OF ENVIRONMENTAL REGULATION  
WATER QUALITY REPORT

Agency 40	STATION	DATE 12-21-84	Time A-Grab Sample 9:35 AM	
lat.		long.		
SOUTHWEST DISTRICT CHEMICAL LABORATORY 7601 Highway 301 North Tampa, FL 33610			COMP	Begin End Salt Wtr. Fresh Wtr. Depth
REMARKS CAST-CRETE BOTTLE # 38			LOCATION END OF CULVERT COUNTY HILLSBOROUGH	

PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	6861	BOD	MG/L	310	
Temp. Water	Deq. C	10		BOD INF	MG/L	50080	
pH Field	Std. Unt	400		BOD EFF	MG/L	50084	
DO Probe	MG/L	299	FIELD 9.1	Removal BOD	%	81010	
SECCHI M Transparency	M	78		Chlorophyll a	UG/L	32210	
Cl2 Total	MG/L	50060		Chlor a corr phaeophytin	UG/L	32211	
Flow	MGD	50050		NO2-NO3-N	MG/L	630	
Velocity	FT/SEC	55		NO2-N	MG/L	615	
Coli TOT MF	#/100ml	31501		NO3-N	MG/L	620	
Fecal Coli	#/100ml	31616		NH3-N	MG/L	610	
pH Lab	STD UNT	403		TKN	MG/L	625	
COND	UMHO/CM	95		N Total	MG/L	600	
DO Lab	MG/L	300	8.7	Organic N	MG/L	605	
Color	PT-CO	80		P Total	MG/L	665	
Turbidity	NTU	76		F Total	MG/L	951	
RES Total	MG/L	500		Chloride	MG/L	940	
RES Susp(TSS)	MG/L	530		Sulfate	MG/L	945	
RES Susp INF	MG/L	900145		Chlorophyll b	UG/L	322b2	
RES Susp EF	MG/L	900146		Chlorophyll c	UG/L	32214	
Removal RES Susp	%	81011					
AGENCY CODE	CODE	28	40				

SAMPLE TAKEN BY: BERRY/GUCCARDI/ENF.	
REPORT PREPARED BY: G. Padua	Date: 12-21-84 REPORT VERIFIED BY: G. Crawford Date: 12/26/84

11000000

DEPARTMENT OF ENVIRONMENTAL REGULATION  
WATER QUALITY REPORT

Agency 40	STATION	DATE 12-21-84	Time A-Grab Sample 9:25 AM	
	lat.                      long.			
SOUTHWEST DISTRICT CHEMICAL LABORATORY 7601 Highway 301 North Tampa, FL 33610			COMP	Begin End Salt Wtr. Fresh Wtr. Depth
REMARKS CAST-CRETE BOTTLE # 49		LOCATION END OF FLUME COUNTY HILLSBOROUGH		

PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	6860	BOD	MG/L	310	
Temp. Water	Deg. C	10		BOD INF	MG/L	50080	
pH Field	Std. Unt	400		BOD EFF	MG/L	50084	
DO Probe	MG/L	299	FIELD 8.4	Removal BOD	%	81010	
SECCHI M	M	78		Chlorophyll a	UG/L	32210	
Transparency				Chlor a corr phaeophytin	UG/L	32211	
Cl2 Total	MG/L	50060		NO2-NO3-N	MG/L	630	
Flow	MGD	50050		NO2-N	MG/L	615	
Velocity	FT/SEC	55		NO3-N	MG/L	620	
Coli TOT MF	#/100ml	31501		NH3-N	MG/L	610	
Fecal Coli	#/100ml	31616		TKN	MG/L	625	
pH Lab	STD UNIT	403		N Total	MG/L	600	
COND	UMHO/CM	95		Organic N	MG/L	605	
DO Lab	MG/L	300	8.3	P Total	MG/L	665	
Color	PT-CO	80		F Total	MG/L	951	
Turbidity	NTU	76		Chloride	MG/L	940	
RES Total	MG/L	500		Sulfate	MG/L	945	
RES Susp(TSS)	MG/L	530		Chlorophyll b	UG/L	32212	
RES Susp INF	MG/L	900145		Chlorophyll c	UG/L	32214	
RES Susp EF	MG/L	900146					
Removal RES Susp	%	81011					
AGENCY CODE	CODE	28	40				

SAMPLE TAKEN BY: BERRY / GUCCIARDO / ENF.

REPORT PREPARED BY: *[Signature]* Date: 12/21/84

REPORT VERIFIED BY: *[Signature]* Date: 12/21/84



DEPARTMENT OF ENVIRONMENTAL REGULATION  
WATER QUALITY REPORT FORM

Agency 40	STATION		DATE 12-21-84		Time A-Grab Sample 9:35 AM		
lat.		long.					
SOUTHWEST DISTRICT CHEMICAL LABORATORY 7601 Highway 301 North Tampa, FL 33610				COMP	Begin	Salt Wtr.	
					End	Fresh Wtr.	
REMARKS CAST-CRTE BOTTLE # 38				LOCATION END OF CULVERT COUNTY HILLSBOROUGH			
PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	6861	BOD	MG/L	310	
Temp. Water	Deq. C	10		BOD INF	MG/L	50080	
pH Field	Std. Unt	400		BOD EFF	MG/L	50084	
DO Probe	✓ MG/L	299	FIELD 9.1	Removal BOD	%	81010	
SECCHI M				Chlorophyll a	UG/L	32210	
Transparency	M	78		Chlor a corr	UG/L	32211	
Cl2 Total	MG/L	50060		phaeophytin	UG/L		
Flow	MGD	50050		NO2-NO3-N	MG/L	630	
Velocity	FT/SEC	55		NO2-N	MG/L	615	
Coli TOT MF	#/100ml	31501		NO3-N	MG/L	620	
Fecal Coli	#/100ml	31616		NH3-N	MG/L	610	
pH Lab	STD UNIT	403		TKN	MG/L	625	
COND	UMHO/CM	95		N Total	MG/L	600	
DO Lab	✓ MG/L	300	8.7	Organic N	MG/L	605	
Color	PT-CO	80		P Total	MG/L	665	
Turbidity	NTU	76		F Total	MG/L	951	
RES Total	MG/L	500		Chloride	MG/L	940	
RES Susp(TSS)	MG/L	530		Sulfate	MG/L	945	
RES Susp INF	MG/L	900145		Chlorophyll b	UG/L	32212	
RES Susp EF	MG/L	900146		Chlorophyll c	UG/L	32214	
Removal							
RES Susp	%	81011					
AGENCY CODE	CODE	28	40				
SAMPLE TAKEN BY: BERRY / GUCCARDI / ENF.				REPORT VERIFIED BY: G. Crawford 12/26/84			
REPORT PREPARED BY: A. Padu 12-21-84				Date: 12-21-84			

11000040

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
SOUTHWEST DISTRICT

## SITE INSPECTION REPORT

NAME OF SITE: Caste Creek DATE: 5-2-86  
ADDRESS OF SITE: 1/4 mile north of I-4 on CR 579 MODULE: 1226  
PERMIT INVOLVED: none PERMIT #: Final Order 86-164  
PURPOSE OF TRIP: to determine if discharge was  
occurring

PERSONS CONTACTED: none

OTHER PERSONS PRESENT: none

VIOLATIONS NOTED: none

SUMMARY REPORT: no discharge occurred during visit  
from plume to drainage ditch, took pH  
reading of standing water directly below end  
of discharge pipe - reading was 8.36, took sample  
back to lab for conductivity; standing water volume  
was approximately 5 gallons

see attached map



visits 5-2-86 notes in red or circled I-4

Kandool

# WATER QUALITY REPORT

AGENCY - 40	STATION plume into ditch	DATE 5-2-86
----------------	-----------------------------	----------------

LABORATORY SAMPLE 2:01 PM	
TIME & COMPOSITE SAMPLE	
COMP	BEOM
	END

DEPTH Ft

SOUTHWEST DISTRICT LABORATORY  
7601 Highway 301 North  
Tampa, FL 33610

# 7970

REMARKS: this sample is standing water near pipe end - no apparent discharge at this time

LOCATION CAST-CRETE

County- Hills

PARAMETER	UNIT	CODE	VALUE	PARAMETER	UNIT	CODE	VALUE
SAMPLE NO.	#	29	7980	BOD	Mg/L	310	
Temp. Water	Deg. C	10		BOD INF	Mg/L	50080	
pH Field	Std unit	400	8.36	BOD EFF	Mg/L	50084	
DO Probe	Mg/L	299		Removal BOD	%	81010	
Secchi Transparency	M	78		Color	PT-CO	80	
Cl <sub>2</sub> Total	Mg/L	50060		RES Total	Mg/L	500	
Flow	MGD	50050		Chlorophyll a	ug/L	32210	
Velocity	Ft/sec	55		NO <sub>2</sub> -NO <sub>3</sub>	Mg/L	630	
Coli TOT MF	#/100 ml	31501		NO <sub>2</sub>	Mg/L	615	
Fecal Coli	#/100 ml	31616		NO <sub>3</sub>	Mg/L	620	
pH Lab	Std unit	403		NH <sub>3</sub>	Mg/L	610	
Cond	umho/cm	95	600	TKN	Mg/L	625	
F Total	Mg/L	951		N Total	Mg/L	600	
Chloride	Mg/L	940		Organic N	Mg/L	605	
Turbidity	NTU	82078		P Total	Mg/L	665	
Turbidity	JTU	70		DO Lab	Mg/L	300	
RES Susp	Mg/L	530		Oil & Grease			
RES Susp INF	Mg/L	900145					
RES Susp EFF	Mg/L	900146					
Removal RES SUSP	%	81011					

SAMPLE TAKEN BY:

REPORT PREPARED BY:

Agency Code

CODE

28

40

REPORT VERIFIED BY:

05/15/86

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION



# Interoffice Memorandum

Reference #9

TO: _____	LOCN: _____
TO: _____	LOCN: _____
FROM: _____	DATE: _____

TO: Cortland S. Hill  
FROM: Craig F. Feeny *CF*  
DATE: September 25, 1986  
SUBJECT: Cast-Crete (Concrete Plant)

David Thulman, assistant general council (FDER) indicated that Cast-Crete lost their appeal on 4/15/86, and subsequently ceased all rock-sprinkling operations and discharges to surface water. DOT contracts were cancelled to eliminate a need for rock-sprinkling.

CFF/mlr



Sharyn L. Smith  
Director

# Department of Administration

## Division of Administrative Hearings

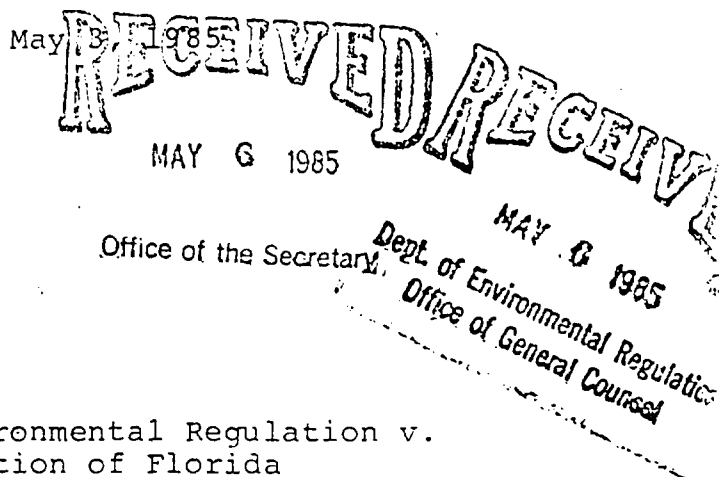
Oakland Building, 2009 Apalachee Parkway

TALLAHASSEE

32301

Bob Graham  
Governor

Nevin G. Smith  
Secretary of Administration



Victoria Tschinkel  
Secretary  
Department of Environmental  
Regulation  
2600 Blair Stone Road  
Tallahassee, Fl. 32301

Re: Department of Environmental Regulation v.  
Cast-Crete Corporation of Florida  
Case No. 84-1647

Dear Secretary Tschinkel:

Enclosed is my Recommended Order in the referenced proceeding, along with the petitioner's Exhibits 3 through 8 and the respondent's Exhibits 1 through 9. I did not receive a transcript of the hearing.

Copies of this letter will serve to notify the parties that my Recommended Order and the record have been transmitted to you on this date. Pursuant to Section 120.57(1)(b)8, Florida Statutes, the parties are advised that they are allowed to file written exceptions thereto with the Department of Environmental Regulation.

Please furnish the Division of Administrative Hearings with a copy of the Final Order rendered in this proceeding so that our files will be complete.

Sincerely,

Diane D. Tremor  
Hearing Officer

DDT/jp  
Enclosures

cc: David Thulman  
W. DeHart Ayala, Jr.

EXHIBIT A

An Affirmative Action/Equal Opportunity Employer

STATE OF FLORIDA  
DIVISION OF ADMINISTRATIVE HEARINGS

DEPARTMENT OF ENVIRONMENTAL REGULATION,	)	
	)	
Petitioner,	)	
	)	
v.	)	CASE NO. 84-1647
	)	
CAST-CRETE CORPORATION OF FLORIDA,	)	
	)	
Respondent.	)	
	)	

RECOMMENDED ORDER

Pursuant to notice, an administrative hearing was held before Diane D. Tremor, Hearing Officer with the Division of Administrative Hearings, on January 16 and 17, 1985 in Tampa, Florida. The issue for determination in this proceeding is whether respondent maintains and operates a stationary installation which will reasonably be expected to be a source of pollution and is subject to orders for corrective action.

APPEARANCES

For Petitioner:	David K. Thulman Assistant General Counsel Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Fl. 32301
For Respondent:	W. DeHart Ayala, Jr. 501 E. Jackson Street Suite 200 Tampa, Fl. 33602

INTRODUCTION

By "Notice of Violation and Orders for Corrective Action" filed on April 9, 1984, the petitioner, Department of Environmental Regulation (DER), charged the respondent, Cast-Crete Corporation of Florida (Cast-Crete), with violating Chapter 403, Florida Statutes, and Chapters 17-3 and 17-4, Florida Administrative Code, by operating an industrial wastewater treatment system without a permit and ordered that certain corrective action be taken. The respondent requested an administrative hearing pursuant to Section 120.57(1), Florida Statutes, and the undersigned was designated as the Hearing Officer.

At the hearing, the petitioner presented the testimony of Henry Dominick, an industrial waste permitting engineer; Andrew Berry, a solid waste specialist; and Alexander Pavda, a chemist, all of whom are with the DER's Southwest District Office. Petitioner's Exhibits 3 through 8 were received into evidence.

The respondent presented the testimony of William Kardash, Cast-Crete's Vice-President in charge of manufacturing; Bruce Cowell, a biology professor at the University of South Florida; and Robert S. Braman, a chemistry professor at the University of South Florida. Respondent's Exhibits 1 through 9 were received into evidence.

Subsequent to the hearing, both parties submitted proposed findings of fact and proposed conclusions of law, which have been thoroughly considered. To the extent that the factual findings proposed by the parties are not incorporated into this Recommended Order, they are rejected as being not supported by competent, substantial evidence adduced at the hearing; irrelevant or immaterial to the issues in dispute; and/or as constituting legal conclusions as opposed to factual findings.

#### FINDINGS OF FACT

Upon consideration of the oral and documentary evidence in the record, as well as the pleadings and joint prehearing stipulation, the following relevant facts are found:

(1) Cast-Crete owns and operates a concrete batch plant in Hillsborough County, Florida, and manufactures concrete products such as reinforced beams, lintels, seals and drainage structures on the property. The plant is located on the west side of State Road 579,  $\frac{3}{4}$  mile north of Interstate 4, Section 28, Township 28 South, Range 20 East.

(2) The concrete products are manufactured in various forms which are laid out over a large portion of Cast-Crete's property. Lubricating oils are utilized to facilitate the removal of the product from the confining forms. During this process some of the lubricating oil is spilled onto the ground. Also, cleaning solutions containing degreasers are utilized to wash the concrete



trucks eight to ten times per day. This solution ends up on the ground.

(3) Aggregate limerock (crushed limestone) is used in the concrete formulation process and is stored in large piles on the property. In order to contain the dust, water is sprayed on the aggregate piles 24 hours a day.

(4) The wash water from the continuous process of wetting the aggregate, other waste water and some stormwater is channeled through the property and into a settling pond in the northwest corner of Cast-Crete's property. This pond discharges continuously off the property by way of a concrete flume into a county maintained ditch. Water in the ditch travels in a westerly direction approximately 200 to 300 yards before it passes under Black Dairy Road, where the watercourse deepens and widens. The ditch discharges into a marshy area which drains into Six Mile Creek and other water bodies.

(5) The pond at the northwest corner of Cast-Crete's property is equipped with a metal skimming device to remove oils and greases floating on the surface of the pond. Nevertheless, it is estimated that approximately 100 gallons of oil per year are discharged by Cast-Crete. Oil and grease in the outflow water is occasionally above 5 mg/L. Oil and grease layers have been observed on water at both Black Dairy Road and Six Mile Creek, probably resulting from road run-off.

(6) Approximately 90% of the water discharged from the property is a result of the wetting or washdown of the aggregate piles. The excess water which comes from the aggregate piles is laden with dissolved limestone, lime and limestone particles. This limestone dust raises the pH level of the water.

(7) Because of the continued wetting of the aggregate, water flows through the settling ponds and off of Cast-Crete's property at a rate of approximately 4.8 gallons per minute, or 7,200 gallons per day or 2.5 million gallons per year. During a rain event, the flow increases markedly. Except during times of heavy rainfall, water flowing from the respondent's property provides a thin stream of water in the drainage ditch approximately six inches wide and several

deep.

(8) The pH of the wastewater from Cast-Crete's discharge flume is between 10 and 11 units. During high volume flows, the pH remains at or above 11 units. An increase of one unit of pH in the wastewater means that the wastewater has become 10 times more basic, since pH is measured on a logarithmic scale. The natural background of unaffected streams in the area of and in the same watershed as the Cast-Crete property is less than 8.5 units.

(9) Specific conductance or conductivity is the measure of free ions in the water. Typical conductivity readings from other water bodies in Hillsborough County range between 50 and 330 micromhos per centimeter. The specific conductance of Cast-Crete's wastewater ranges from 898 to 2000 micromhos per centimeter. This is due to the presence of calcium carbonate and calcium hydroxide in the water.

(10) Blue-green algae is the dominant plant species in the ditch between the Cast-Crete discharge flume and the first 150 meters of the ditch. A biological survey of the ditch system indicates that the diversity of species east of Black Dairy Road is low. This is attributable in part to the high pH of the wastewater. The low diversity can also be attributed to the fact that the County maintains the ditch by use of a dragline on an annual basis.

(11) Background samples from a site within one mile to the northwest of the Cast-Crete property were taken. The site (a stream passing under Williams Road) is an appropriate place to take background samples because the water there is unaffected by Cast-Crete's discharge or other man-induced conditions. The pH background sample ranged from 4.6 units to 5.1 units. The specific conductance background samples ranged from 70 to 100 micromhos per centimeter. Samples taken from a site potentially impacted by Cast-Crete's discharge showed a pH level of from 6.35 to 7.37 units and specific conductance of from 592 to 670 micromhos per centimeter.

(12) Cast-Crete discharges water from its concrete plant operation without a permit from the DER.

#### CONCLUSIONS OF LAW

It is unlawful to operate, maintain or construct a stationary

installation which will reasonably be expected to be a source of water pollution without an appropriate and currently valid permit issued by the DER. Section 403.087(1), Florida Statutes. An "installation" includes any structure or operation which may emit water contaminants in quantities prohibited by the DER rules. Section 403.031(8), Florida Statutes. "Water" includes all surface waters, except those owned entirely by one person, which are included only in regard to possible discharge on other property or water. Section 403.031(3), Florida Statutes.

The respondent has argued that it is not required to obtain a permit because it is not discharging water contaminants into "waters of the state." To support this argument, respondent relies upon the statute (Section 403.817) and rules (Rule 17-4.02(17)) pertaining to determinations regarding the landward extent of state waters based upon the presence of delineated dominant plant species. This method for determining the extent of DER's jurisdiction is utilized primarily for delineating the borders of water bodies in dredge and fill cases. It is not a prerequisite to DER's jurisdiction when water being discharged into "surface water" obviously flows into other water bodies. It is concluded that "surface waters" as defined in Section 403.031(3), Florida Statutes, begin where Cast-Crete's wastewater from the discharge flume first hits the ditch, and that the DER has jurisdiction to regulate discharges to the ditch.

The testimony and documentary evidence presented at the hearing clearly demonstrates that Cast-Crete's wastewater violates the water quality standards set forth in Chapter 17-3, Florida Administrative Code.

In pertinent part, Rule 17-3.061(2)(i) provides that

pH - shall not vary more than one unit above or below natural background provided that the pH is not lowered to less than 6 units or raised above 8.5 units. If natural background is less than 6 units, the pH shall not vary below natural background or vary more than one unit above natural background. If natural background is higher than 8.5 units, the pH shall not vary above natural background or vary more than one unit below background.

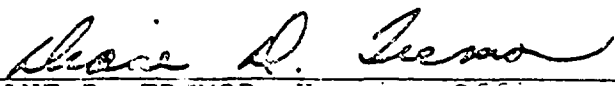
the pH of natural background is less than 8.5 units and the pH of Cast-Crete's wastewater is greater than 10 units. Thus, the Cast-Crete discharge is a potential source of water pollution with regard to the pH level. Likewise, the criteria for specific conductance set forth in Rule 17-3.061(2)(o) is not met, nor is the criteria regarding oils and greases set forth in Rule 17-3.061(2)(k), Florida Administrative Code. The specific conductance of Cast-Crete's wastewater is well over 100% above background levels, and its wastewater occasionally contains oils and greases in excess of 5 milligrams per liter.

Violations of the standards for pH, specific conductance and oils and greases constitute pollution. Rule 17-3.061(2), Florida Administrative Code. Therefore, it must be concluded that Cast-Crete maintains and operates a stationary installation which is reasonably expected to be a source of pollution, and must apply for and obtain an appropriate and currently valid permit from the DER.

#### RECOMMENDATION

Based upon the findings of fact and conclusions of law recited herein, it is RECOMMENDED that a Final Order be entered requiring respondent to submit a complete application for an industrial wastewater permit within thirty (30) days, and that, if it fails to do so, it cease discharging wastewater from its property until such time as an appropriately valid permit is issued by the DER.

Respectfully submitted and entered this 3<sup>rd</sup> day of May, 1985, in Tallahassee, Florida.

  
DIANE D. TREMOR, Hearing Officer  
Division of Administrative Hearings  
The Oakland Building  
2009 Apalachee Parkway  
Tallahassee, Fl. 32301  
(904) 488-9675

Filed with the Clerk of the Division  
of Administrative Hearings this 3<sup>rd</sup>  
day of May, 1985.

#### Copies furnished:

David K. Thulman  
Assistant General Counsel  
Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Fl. 32301

No. 84-1647

W. DeHart Ayala, Jr.  
501 E. Jackson Street  
Suite 200  
Tampa, Fl. 33602

Victoria Tschinkel  
Secretary  
Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Fl. 32301

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

DEPARTMENT OF ENVIRONMENTAL  
REGULATION, STATE OF FLORIDA

Petitioner,

vs.

CAST-CRETE CORPORATION OF  
FLORIDA

Respondent.

CASE NO. 84-1647

D. E. R.

SEP 5 1985

SOUTH WEST DISTRICT  
TAMPA

FINAL ORDER

On May 3, 1985, the Division of Administrative Hearings' hearing officer in the above-styled case submitted her Recommended Order to me for final agency action. A copy of that Order is attached as Exhibit A. Pursuant to Section 120.57(1)(b)8., Florida Statutes, and Florida Administrative Code Rule 17-103.200 all parties to the proceeding were allowed ten days in which to file exceptions to the Recommended Order. Respondent Cast-Crete Corporation of Florida ("Cast-Crete") filed timely exceptions, a copy of which are attached as Exhibit B. Complainant Department of Environmental Regulation (the "Department") filed a Response to those exceptions.

BACKGROUND

The Department served a Notice of Violation on Cast-Crete in April of 1984, alleging that Cast-Crete had constructed and was operating an industrial wastewater treatment system without a permit. Cast-Crete argued that the Department has no jurisdiction to require a permit because Cast-Crete does not discharge to waters of the state. The hearing officer concluded that the ditch to which Cast-Crete discharges is waters as defined in section 403.031(3), Florida Statutes (1983) and recommended that Cast-Crete be required to obtain a permit or cease operations.

RULINGS ON EXCEPTIONS

1. Cast-Crete's first exception is to the finding of fact that aggregate piles at the site are sprayed with water primarily to control dust. The record supports a modification of this

finding to reflect the fact that the spraying is being conducted primarily to saturate the rock. Accordingly, the Recommended Order will be so modified. I would note, however, that this modification in no way affects the outcome of the case.

2. Cast-Crete's second exception is also to a factual finding. In ruling on this exception and the remaining exceptions I take notice of the standard of review set forth in Section 120.57(1)(b)9., Florida Statutes. Under that provision, I may not reject the hearing officer's findings of fact unless, after a review of the complete record, I determine that there is no competent substantial evidence to support the hearing officer's findings.

In this case there is testimony in the record, apparently accepted by the hearing officer, to support the finding that the dominant plant species in the ditch is blue-green algae. Thus the second exception is rejected.

3. The third exception requests that I make eight additional findings of fact. Each of those requests will be dealt with separately.

a. Cast-Crete first requests that I find that its discharge constitutes the sole source of water in the ditch except in times of heavy rainfall. This request is rejected as irrelevant and immaterial as it makes no difference where the water in the ditch comes from.

b. Next Cast-Crete requests a finding that "state waters" begin 50 yards east of Black Dairy Road and not at the point of discharge. This statement actually constitutes a legal conclusion and is directly contrary to the hearing officer's conclusion that the ditch is waters as defined in Section 403.031(3), Florida Statutes (1983). That section provides:

(3) "Waters" shall include, but not be limited to rivers, lakes, streams, springs, impoundments, and all other waters or bodies of water, including fresh, brackish, saline, tidal, surface or underground. Waters owned entirely by one person other than the state are included only in regard to possible discharge on other property or water. Underground waters include, but are not limited to all underground waters passing through pores

of rock or soils or flowing through in channels, whether manmade or natural.

This definition of waters is extremely broad and includes surface waters in artificial waterbodies such as ditches. The fact that Cast-Crete is the primary source of flow in the ditch is irrelevant to the issue of whether the Department has jurisdiction over the discharge. Thus this request for an additional finding of fact is rejected as it is contrary to the law and not supported by any evidence.

c. and d. Cast-Crete's next two requests for an additional finding of fact must also be rejected since they are dependent on my concluding that the ditch at the point of discharge is not state waters.

e. Cast-Crete's requests a "finding" that specific conductance does not indicate the chemical content of water and thus does not constitute pollution. Section 403.031(2), Florida Statutes, defines "pollution" as:

the presence in the ... waters of the state of any substances, contaminants, ... or man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of ... waters in qualities or at levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life or property, or unreasonably interfere with the enjoyment of life or property, including outdoor recreation.

The Department has established a water quality standard for specific conductance at a level to protect the waters of the state. A violation of that standard constitutes pollution within the broad definition quoted above.

f. Cast-Crete requests that a number of findings of fact be made regarding the quality of its effluent and the neutralization process occurring naturally. Those findings are rejected as being irrelevant and immaterial to the issue in this case - whether a permit should be required for Cast-Crete's discharge.

g. With respect to the water quality standard for oils and greases, there is competent substantial evidence in the record to support a finding that Cast-Crete's discharge causes or contributes to a violation of that standard.



h. Finally, Cast-Crete requests a finding that its discharge does not adversely affect aquatic organisms or plant life in waters of the state. I find no basis in the record for such a finding and, thus, reject this request.

4. In addition to the exceptions to findings of facts, Cast-Crete has filed four exceptions to the hearing officer's conclusions of law. First, the company excepts to the hearing officer's conclusion that it discharges into waters of the state. This exception argues that the Department's jurisdiction over waters is limited by Section 403.817, Florida Statutes. This argument misconceives the regulatory scheme established by Chapter 403. Section 403.087 provides that the Department shall require permits for stationary installations which may be a source of water pollution. "Waters" of the state are defined in Section 403.031(3), Florida Statutes (1983) as amended by Section 403.031(12), Florida Statutes (1984 Supp.). Section 403.817 does not limit those waters which are within the Department's jurisdiction. Instead, it provides a method, once it is determined that a water of the state exists, of delineating the landward boundary of that water.

In this case, the ditch into which Cast-Crete discharges was found by the hearing officer to be a water of the state. Thus the existence or non-existence of vegetation in that ditch is irrelevant.

5. In its next exception, Cast-Crete argues that the hearing officer erred in failing to conclude that the definition of pollution in Rule 17-3.021(19) applies in this case. That Rule definition is identical to the statutory definition quoted above. I find no inconsistency between that definition of pollution and the statement in Rule 17-3.061(2) that violation of the listed water quality criteria shall constitute pollution. In interpreting the statutory definition, the Department has adopted by rule specific criteria for a number of pollutants based on their expected impacts on water quality. It is a reasonable construction of the statute that exceedances of those levels will

cause pollution.

6. Cast-Crete's next exception seems to argue that the Department bears the burden in any enforcement case to establish a violation of the criteria contained in Florida Administrative Code rule 17-3.051. In fact, the requirements of Rule 17-3.051 and Rule 17-3.061 are independent of each other. The Department did not allege and was not required to prove a violation of Rule 17-3.051.

7. Cast-Crete next alleges that the hearing officer failed to conclude that the facility could reasonably be expected to be a source of pollution. In fact, the hearing officer did make that conclusion at page 6 of the Recommended Order.

8. Cast-Crete's final exception must also be rejected since I have already upheld the hearing officer's conclusions that Cast - Crete is causing water quality violations in waters of the state.

Accordingly, having considered the record and pleadings below, it is

ORDERED that,

1. The hearing officer's findings of fact and conclusions of law are adopted as modified herein.

2. Within thirty days of entry of this final order, Cast-Crete shall apply for an industrial wastewater permit or shall cease discharging wastewater from its facility to waters of the state.

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order is filed with the clerk of the Department.


DONE AND ENTERED this 8<sup>th</sup> day of August, 1985.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 (9),  
Florida Statutes, with the designated Depart-  
ment Clerk, receipt of which is hereby acknow-  
ledged.

Sharon J. Clark 8/9/85  
Clerk Date

  
VICTORIA J. TSCHINKEL  
Secretary

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301  
(904) 488-4805

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing FINAL ORDER has been furnished by hand-delivery to Diane D. Tremor, Hearing Officer, Division of Administrative Hearings, The Oakland Building, 2009 Apalachee Parkway, Tallahassee, Florida 32301 and by U.S. Mail to W. DeHart Ayala, Jr. Esquire, 501 E. Jackson Street, Suite 200, Tampa, FL 33602, to David K. Thulman, Esquire, 2600 Blair Stone Road, Tallahassee, Florida 32301, this 9th day of August, 1985.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION

Mary F. Smallwood  
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CAST-CRETE CORPORATION OF  
FLORIDA, INC.,

Respondent/Appellant,

Appeal No. 85-1961

vs.

DEPARTMENT OF ENVIRONMENTAL  
REGULATION,

Petitioner/Appellee.

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INITIAL BRIEF OF APPELLANT

ON REVIEW OF A FINAL ORDER  
OF THE SECRETARY OF THE STATE OF FLORIDA, DEPARTMENT  
OF ENVIRONMENTAL REGULATION

November 5, 1985

W. DeHart Ayala, Jr., Esquire  
FEW & AYALA  
501 East Jackson Street  
Suite 200  
Tampa, Florida 33602  
813/229-6401

## TABLE OF CONTENTS

	Page
Table of Contents .....	i
Table of Citations .....	ii
Prologue .....	iv
Introduction .....	1
Procedural History .....	1
Issue Presented .....	1
Statement of Facts .....	2
Argument	
I.    THE SECRETARY ERRED IN RULING THAT "WATERS OF THE STATE" BEGIN AT THE POINT WHERE APPELLANT'S WASTE WATER HITS A DRAINAGE DITCH WHICH CONTAINS NO WATER OTHER THAN THAT WHICH FLOWS FROM APPELLANT'S PROPERTY .....	6
II.   THE SECRETARY ERRED IN ORDERING APPELLANT TO APPLY FOR A DISCHARGE PERMIT IN THE ABSENCE OF EVIDENCE OF HARM OR THREAT OF HARM TO THE ENVIRONMENT .....	10
Conclusion .....	17
Certificate of Service .....	18

# TABLE OF CITATIONS

<u>CASES</u>	<u>PAGE</u>
<u>Brewster Phosphates v. State Dept.</u> of Envir., 444 So2d 483 (Fla. App. 1 Dist 1984).....	14, 15
<u>Caloosa Property, Etc. v. Dept. of</u> Envir. Reg., 462 So2d 523 (Fla. App. 1 Dist. 1985).....	12, 13
<u>Gap Creek Homeowners' Assoc. v. State</u> Dept. of Envir., DOAH Case No. 80-996, 3 FALR 725-A (1981).....	12
<u>Gardinier, Inc., v. Florida Dept. of</u> Pollution Control, 300 So2d 75 (Fla. App. 1 Dist. 1974).....	9
<u>Goldring v. State Department of Envir.</u> Reg., 452 So2d 968 (Fla. App. 3 Dist. 1984).....	7
<u>Kleppe v. Sierra Club</u> , 427 U.S. 390, 96 S.Ct. 2718, 49 L.Ed.2d 576 (1976).....	16
<u>North Lakeland Citizens League</u> Inc., et al. v. Sam Rodgers, DOAH Case No. 80-1732 3 FALR 450A (1980).....	12
<u>St. Regis Paper Company v.</u> State of Florida, 237 So2d 797 (Fla. App. 1 Dist. 1970).....	18
<u>State ex rel Greenberg v. Florida</u> State Board of Dentistry, 297 So2d 628 (Fla. App. 1 Dist 1974).....	9
<u>State v. Fall Chase Special Taxing Dist.,</u> 424 So2d 787 (Fla. App. 1 Dist. 1982).....	9

<u>STATUTES AND LAWS</u>	<u>PAGE</u>
Section 120.68, <u>Florida Statutes</u> .....	1
Section 403.031, <u>Florida Statutes</u> .....	6, 11
Section 403.087, <u>Florida Statutes</u> .....	1, 10
Section 403.817, <u>Florida Statutes</u> .....	6
Rule 17-3.061, <u>Florida Administrative Code</u> .....	14, 15
Rule 17-4.02(17), <u>Florida Administrative Code</u> .....	6, 7
Rule 17-4.021, <u>Florida Administrative Code</u> .....	15
Rule 17-4.04 (9)(i), <u>Florida Administrative Code</u> .....	8
Rule 17-4.28(8), <u>Florida Administrative Code</u> .....	7
Rule 9.030(b)(1)(c), <u>Florida Rules of Appellate Procedure</u> .....	1



## PROLOGUE

This brief is filed on behalf of the Cast-Crete Corporation of Florida, appellant in this action. For the sake of clarity, this brief refers to Cast-Crete Corporation as "CC" and the Florida Department of Environmental Regulation as "DER". In this brief, "R" refers to the appellate record filed with this honorable court.

### INTRODUCTION

This is an appeal from a final order issued by DER'S Secretary, Victoria J. Tschinkel, requiring CC to apply for permit pursuant to Section 403.087(1) Florida Statutes. CC invokes the jurisdiction of this court pursuant Section 120.68, Florida Statutes and Rule 9.030(b)(1)(c) Florida Rules of Appellate Procedure.

### PROCEDURAL HISTORY

On April 9, 1984, DER served a Notice of Violation on CC alleging that CC was discharging waste water from its property in violation of Department regulations, and therefore, a permit was required. (R0385) CC filed a timely request for an administrative hearing and the matter was referred to the Division of Administrative Hearings. (R0404) A formal hearing was held on January 16 and 17, 1985. (R0464) The hearing officer filed a recommended order on May 3, 1985, (R0508) which was adopted by DER's Secretary in her final order dated August 8, 1985. (R0529)

### ISSUES PRESENTED

This appeal presents two issues:

(1) Did the Secretary err in ruling that "waters of the state" begin at the point where appellant's waste water hits a drainage ditch which contains no water other than that which flows from appellant's property; and

(2) Did the Secretary err in ordering appellant to apply for a discharge permit in the absence of evidence of harm or threat of harm to the environment?

### STATEMENT OF FACTS

CC operates a concrete batch plant where it manufactures concrete products such as reinforced beams, lintels, sills and drainage structures. (R0508) All of the products used in CC's concrete manufacturing process, primarily sand, water and limerock, are compounds occurring naturally in the environment. (R0195) These substances are indigenous to Florida and found in abundance throughout the state. Id. They are typical of substances that flow from our natural springs which form a fundamental part of our ecosystem. Id.

CC's plant is located on the westside of State Road 579. (R0508) To the east of State Road 579, 20-30 feet above the elevation of CC's property, is a landfill used by Hillsborough County to deposit garbage and other refuse. (R0132-0133)

When it rains, water flows in large quantities from the landfill across State Road 579 and onto CC's property. (R0165) To control the water running off the landfill, in 1981 CC designed and implemented an elaborate drainage system. (R0134-0136) This consists of a two-foot high curb which was built along the entire bank of its property. (R0134) Two holding ponds were also installed on the property, and a berm was built in the southwest corner to increase the holding capacity of the ponds. (R0135) Thus, rainwater is channeled from the curb to the ponds. A 15 inch concrete flume was built on the eastern bank of the pond in the northwest part of CC's property. (R0135) The pond and the flume are equipped with mechanical skimmers to

prevent debris and residue from exiting the flume. (R0156-0157) During periods of heavy rain fall, excess rainwater meanders through the skimmers and the flume where it is channeled into a man-made drainage ditch. (R0136) The ditch was excavated by CC to prevent flooding of its neighbors who are located at a lower elevation. (R0135 - 0136)

Pursuant to DOT regulations, CC sprinkles aggregate limerock, used in the manufacturing of pre-stressed products, with water. (R0148-0149) This procedure retards dusting and air pollution. Surplus water from sprinkling flows into the ponds. (R0151)

Excess water from wetting the aggregate is also contained within the ponds. (R0151) Water flowing from the aggregate is run through a slurry pit. Id. The slurry then passes through a large catch basin which is designed so that the flow pipe is not directly at the bottom but raised. (R0157) Thus, much of the precipitated matter collects at the bottom of the basin. Id. The balance goes through a 24 inch underground pipe which is connected to the pond located in the northwest corner of the property. Id. Further precipitation occurs in the pond which is dredged out periodically. (R0151) The pond has also been equipped with mechanical skimmers to collect any precipitated matter that floats to the surface. Id.

During times of heavy rain soluble substances occasionally enter the holding pond where it precipitates. Water from CC's well is used to wash the exterior of ready-mix trucks. (R0153)

Well water is also mixed with a solvent, that was approved for usage by EPA in 1983, to steam clean the engines used in the manufacturing process. (R0153 - 0154) Lubricating oil is used to facilitate the removal of confining forms; however, these forms are totally enclosed and not subject to scouring by rainwater. (R0152; R0167-0170) No toxic or hazardous substances are subject to washing by waste water or rainwater. (R0154)

Runoff water from the ponds travels through the concrete flume used to channel excess rainwater. (R0157) As discussed above, before leaving the pond, the water must first pass through mechanical skimmers to prevent debris and trace oil residue from exiting through the flume. (R0156) When the water leaves the flume, it trickles down the same drainage ditch excavated by CC to prevent flooding. (R0157)

The ditch, which is maintained by Hillsborough County and dredged annually by dragline, runs west approximately 1,600 feet to Black Dairy Road and connects with another ditch that runs parallel to Black Dairy Road. (R0137) The average flow of the water leaving CC's property is approximately 5 gallons per minute and provides a thin stream of water approximately 6 inches wide, and 3/4 inches deep. (R0142) However, periodically the stream dissipates for lack of water; sometimes the flow is a mere trickle travelling a maximum of 200-250 feet. Id.

DER sampled the water leaving CC's property at the flume. (R048) Specific criteria for pH and specific conductance were allegedly violated. However, DER failed to take samples at the

point where discharge waters join state waters. Along the drainage ditch approximately 50 yards east of Black Dairy Road, specific conductance is not elevated above acceptable limits. (R0270) This water closely approximates the characteristics of the background water found at the 6 Mile Creek area. (R0257)

Specific conductance does not indicate the chemical content of the water and, therefore, does not necessarily indicate the presence of "pollution." (R0275) High pH and specific conductance in water flowing from CC's property is due to the presence of calcium carbonate and calcium hydroxide which are neutralized by naturally occurring carbonic acid and bicarbonate ion. (R0255-0256) Calcium carbonate found in water flowing from CC's property is, during the process of neutralization, being turned back into limerock. (R0256)

Water flowing from CC's property using DER testing methods contains no detectable limits of oil and grease. (R0264) However, oil and grease are present on the surface of waters in the areas of Black Dairy Road and Marlboro Road due to rainwater runoff from these roads. (R0244)

Acquatic organisms and plant life are not adversely affected by water flowing from CC's property. (R0204) The habitat is undisturbed and the species found there are abundant, (R0184) and typical of drainage ditches located in eastern Hillsborough County. (R0189)

Based on the foregoing facts, CC seeks reversal of the Secretary's Final Order.

## ARGUMENT

- I. THE SECRETARY ERRED IN RULING THAT "WATERS OF THE STATE" BEGIN AT THE POINT WHERE APPELLANT'S WASTE WATER HITS A DRAINAGE DITCH WHICH CONTAINS NO WATER OTHER THAN THAT WHICH FLOWS FROM APPELLANT'S PROPERTY.

Section 403.031 Florida Statutes defines "waters of the state" to include:

"Lakes, streams, springs, impoundments, and all other waters or bodies of water, including fresh brackish, saline, tidal, surface or underground..."

DER's regulatory jurisdiction over water is limited to "waters of the state". Moreover, the legislature has carefully circumscribed DER's jurisdiction over "waters of the state" by its enactment of Section 403.817 Florida Statutes, which requires DER to develop criteria to determine the landward extent of state waters. DER has done so through the adoption of Florida Administrative Code Rule 17-4.02(17). Pursuant to this rule, state waters begin where the presence of certain species of plants are found to be the dominate species in a particular area..

Appellee has conceded that Rule 17.402(17) is in fact a "method of determining the extent of the Department's jurisdiction." See, DER'S Proposed Recommended Order, pg. 7, paragraph #6. Further, Appellee concludes that the subject ditch must be within the landward extent of standing water at Black Dairy Road because the dominant species, bluegreen algae, is listed on the regulatory indices. However, appellee failed to consider that

"the presence of an index species is not a conclusive indication of the landward extent of a water body." Goldring v. State, Department of Envir. Reg., 452 So.2d 968,969 (Fla. App. 3 Dist. 1984)

Appellees failure to properly apply Rule 17-402(17) is illustrated by analogy to the Goldring case, 452 So.2d at 968. In that case, applicant appealed from a DER Order denying his application for a permit to mine limestone. In holding that DER lacked jurisdiction over the property, the Court stated that although sawgrass, listed under Rule 17-402(17), was the dominant species in the area, its presence was a mere indication of where state waters might begin. Goldring at 970. This reasoning was based on the literal intent of the rule which is to include "such water bodies (sic) areas which are customarily submerged and exchange waters with a recognizable water body." Rule 17-4.28(8) (emphasis added). The Court in Goldring further reasoned that the word "exchange" contemplated a flow of water from the waters of the state to the site in question, and concluded that water, which flows in only one direction does not trigger the agency's right to regulate. Goldring @ 970.

Similarly, in concluding that the drainage ditch in the present case contains waters of the state based solely upon a finding that blue green algae is the dominant species, DER fails to address the fundamental statutory requirement that there must be an "exchange" of waters with a recognizable body of water in order to assert regulatory jurisdiction. The facts clearly indicate that the flow of water from CC's property to Black Dairy



Road is one way, See, Hearing Officer's Recommended Order, pg. 3, paragraph #4. There is no flow in the opposite direction. In fact, at times CC's discharge water stops prior to meeting state waters. (R0142) Thus, in failing to satisfy the exchange requirement, DER has improperly asserted jurisdiction.

Moreover, the drainage ditch in question is specifically exempt from DER's permit jurisdiction pursuant to Florida Administrative Code Rule 17.404(9)(i) which provides in pertinent part:

"17-4.04 Exemptions. The following sources are exempted from the permit requirement of this Chapter.

(9) Construction; dredging or filling activities associated with the following types of projects:

(i) The maintenance of existing control structures, dikes and irrigation and drainage ditches... This exemption shall apply to man-made trenches dug for the purpose of draining water from the land or for transporting water for use on the land and which are not built for irrigational purposes. This exemption does not include residential canal systems." Id.

It is undisputed that the ditch in question is a drainage ditch. See, DER's Notice of Violation and Order for Corrective Action, Pg. 2, paragraph #4; and Andrew Berry's testimony at Administrative Hearing, Volume I, pg. 49, line 3. Moreover, this ditch was excavated by CC, (R0137) and it is clearly exempt from DER's jurisdiction. Rule 17-404(9)(i).

It is implicit from a reading of DER's rules that the value of maintaining pristine drainage ditches is clearly outweighed by their benefit to public health and welfare. This is evidenced by the fact that Hillsborough County annually dredges the ditch in

question by dragline. (R0137) The County is not required to obtain a permit for the dredging even though it disrupts every living organisms in the ditch. Common sense dictates that if DER required permitting and asserted jurisdiction over water in drainage ditches, local governments would be stymied in their implementation of flood and drainage control programs. Therefore, regardless of where state waters begin, the ditch into which CC drains its property is specifically exempt from regulation by DER. Id. DER's attempt to regulate activities in the drainage ditch is a violation of its own rules, and an abuse of its jurisdictional authority.

An agency has only such power as expressly or by necessary implication is granted by legislative enactment. State ex rel Greenberg v. Florida State Board of Dentistry, 297 So.2d 628, 635-36 (Fla. App. 1st Dist. 1974) Moreover, an agency may not increase its own jurisdiction and as a creature of statute, has no common law jurisdiction or inherent power. Gardinier, Inc., v. Florida Department of Pollution Control, 300 So.2d 75,76 (Fla. App. 1st Dist. 1974). "When acting outside the scope of its delegated authority, an agency acts illegally and is subject to the jurisdiction of the courts when necessary to prevent encroachment on the right of individuals." State v. Falls Chase Special Taxing Dist., 424 So.2d 787, 793 (Fla. App. 1st Dist. 1982).

In the case at hand, it is abundantly clear that DER has attempted to extend its jurisdiction beyond the scope of its delegated authority. In finding that CAST-CRETE discharges into

state waters, DER failed to apply the all important "exchange" test. If DER were to properly apply the law in this case, it could only conclude that there is no "exchange" of water between the "waters of the state" and CC's discharge water. Moreover, DER's Secretary did not consider the established fact that the drainage ditch into which the discharge water flows is specifically exempted from DER'S jurisdiction by its own rules. It is inconceivable that a state agency would assert jurisdiction over waters in a man-made drainage ditch, claiming that the waters in the ditch were "waters of the state". Such an assertion is tantamount to DER asserting jurisdiction over birdbaths, rain gutters, swimming pools and the like. This result is clearly beyond the scope of the legislature intent. DER'S attempt to ignore the literal intent of its statutory authority, in addition to ignoring its own rules forces the conclusion that DER has encroached upon the rights of CC by asserting jurisdiction improperly.

II. THE SECRETARY ERRED IN ORDERING APPELLANT TO APPLY FOR A DISCHARGE PERMIT IN THE ABSENCE OF EVIDENCE OF HARM OR THE THREAT OF HARM TO THE ENVIRONMENT?

Section 403.087 Florida Statutes provides in pertinent part:

"(1) No stationary installation which will reasonably be expected to be a source of air or water pollution shall be operated, maintained, constructed, expanded, or modified without an appropriate and currently valid permit issued by the Department, unless exempted by department rule." (emphasis added) Id.

Pollution is defined in Section 403.031 Florida Statutes as:

"The presence in the outdoor atmosphere or waters of the state of any substance, contaminants, noise or manmade alteration of the chemical, physical or radiological integrity of air or water in quantities or at levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property including outdoor recreation."  
Id.

The Secretary erred in adopting the hearing officers conclusion of law that "CC is an installation which could reasonably be expected to be a source of pollution" as defined by Section 403.031 Florida Statutes. DER failed to introduce one scintilla of evidence showing that CC's discharge could reasonably be a source of pollution. DER's assertion is nothing more than a speculative conclusion unsupported by the record.

In contrast, CC unequivocally proved that there was no harm to the environment resulting from its discharge waters. The record establishes that there is an abundance of aquatic plant and animal life present in the area coming in contact with CC's discharge water. (R0184) Experts have repeatedly testified that the discharge water has no negative impact on the biota. (R0204) Moreover, in its zeal to protect the environment, DER has overlooked the obvious fact that but for the discharge water, there would be no aquatic plant or animal life along much of the drainage ditch. (R0198) Furthermore, any actual harm inuring to the biota is not caused by CC but is the result of dragline dredging of the drainage ditch by Hillsborough County. (R0137)

It is well established that DER has the "...authority to allow additional discharges of pollutants into water bodies where the effect on water quality is found to be negligible..." Caloosa Property, Etc. v. Department of Envir. Reg., 462 So2d 523, 526 (Fla. App. 1st Dist. 1985). Moreover, DER has repeatedly held that stormwater discharge permits are not required where no impact on water quality is shown. See, e.g., Gap Creek Homeowners' Association v. State Department of Envir. Reg., DOAH Case No. 80-996, 3 FALR 725-A (1981); North Lakeland Citizens League, Inc., v. Sam Rodgers, DOAH Case No. 80-1732, 3 FALR 450A (1980).

In Caloosa, 462 So2nd @ 525, a property owners' association appealed from an order of the DER, issuing a dredge and fill permit to developers to construct a series of canals and artificial lakes in connection with their development of an industrial park. While the facts may be distinguished from the case at hand,<sup>1</sup> Caloosa, is applicable here insofar as it elucidates the principles upon which DER should ground its permitting decisions.

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<sup>1</sup> In Calossa, supra, DER granted a permit for dredge and fill activities. In contrast, CC argues it is not required to get a permit because it is not polluting, and therefore, it is not participating in activities that require permitting.

The court in Caloosa, @ 526, upheld DER's decision allowing a developer to go forward with its construction because it gave reasonable assurances that the activity would not harm the environment. These reasonable assurances were based on the "numerous safeguards provided by the developer, restrictions prohibiting the most potentially hazardous industrial activities, and management, control, review and testing procedures for the prevention and detection of potential threat to water quality." Id.

Likewise, as evidenced by the record, CC has given DER reasonable assurances, through the implementation of numerous safeguards, that its discharge water does not pose a potential threat to the environment. Despite the fact that much of the water leaving CC's property is runoff water from the landfill, CC has, on its own initiative, expended tremendous resources to insure that the water leaving its property does not contribute to environmental degradation. (R0134-0136) This is evidenced by its extensive and elaborate drainage system which includes: channelling both rain and industrial waters to holding ponds, containing these waters to increase precipitation of solid matter, and mechanical screening of the water to guarantee that oil residue and debris will not leave its property. Id. CC has proven itself to be environmentally conscious through safeguards, monitoring and control. Id. Furthermore, absent technological advances in the environmental and/or industrial sectors, CC does not anticipate that its manufacturing process nor its treatment system will be altered.

Although there is no evidence showing actual or potential pollution; DER alleges that CC's discharge water is in violation of specific criteria standards for pH, specific conductance, and oil and grease under Rule 17-3.061 (k)(1),(1), and (0),<sup>2</sup> and therefore, it is reasonably certain to cause harm to the environment. However, a violation of specific criteria is not prima facie evidence of actual or potential pollution. It is well settled that "the articulation of finite standards, to be applied to all waters of this state is impossible." Brewster Phosphates v. State Department of Envir. Reg., 444 So2d 483, 485 (Fla. App. 1 Dist. 1984). Moreover, the specific criteria rule

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<sup>2</sup> Florida Administrative Code Rule 17-3.061 provides for water quality standards in pertinent part:

"(k) Oils and Greases:

1. Dissolved or emulsified oils and greases shall not exceed 5.0 milligrams per liter.

2. No undissolved oil, or visible oil defined as iridescence, shall be present so as to cause taste or odor, or otherwise interfere with the beneficial use of waters.

(1) pH - shall not vary more than one unit, above or below natural background provided that the pH is not lowered to less than 6 units or raised above 8.5 units. If natural background is less than 6 units, the pH shall not vary below natural background or vary more than one unit above natural background. If natural background is higher than 8.5 units, the pH shall not vary above natural background or vary more than one unit below background.

(0) Specific Conductance - shall not be increased more than 100% above background levels or to a maximum level of 500 micromhos per centimeter in surface waters in which the specific conductance of the water at the surface is less than 500 micromhos per centimeter; and shall not be increased more than 50% above background level or to a maximum level of 5,000 micromhos per centimeter if the surface conductance of the water at the surface waters is equal to or greater than 500 micromhos per centimeter but less than 5,000 micromhos per centimeter."

"is only one part of an extensive legislative scheme requiring DER to study, classify, develop long range plans for, and supervise all of Florida's waters." Brewster, supra @ 485. DER has specifically provided for two definitions of pollution in recognition of its mandate to prevent, abate and control pollution in the interest of public health. See, Fla. Statutes 403.021(4). The hearing officer as well as the Secretary of DER failed to recognize that a violation of specific criteria standards under Rule 17-3.061, must be read in pari materia with the definition of pollution as provided in Rule 17-4.021 and Section 403.031 Florida Statutes. It is overwhelmingly clear that the specific criteria standards under Rule 17-3.061 establishes no more than a rebuttable presumption that a violator might be an actual or potential polluter. CC produced evidence which establishes that its discharge waters are not actual or potentially harmful to the environment. Therefore, CC's alleged violation of specific criteria is not pollution without a showing of actual or potential harm. This DER failed to prove.

DER's weakness in reasoning can be analyzed by examining how discharge such as CC's actually effect the environment. Assuming arguendo, that DER's methods of measuring are accurate, the high pH and specific conductance <sup>3</sup> found in water flowing from CC's

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<sup>3</sup> It should be noted here that specific conductance does not indicate the chemical content of water. It is a measure of all ionic species in the water, and therefore, it does not necessarily indicate the presence of pollution. (R0275)



property is due to the presence of calcium carbonate and calcium hydroxide which are neutralized in the environment by naturally occurring carbonic acid and bicarbonate ion. (R0255-0256) Therefore, calcium carbonate found in water flowing from CC's property is, during the process of neutralization, being turned back into limestone, a mineral naturally present throughout the State of Florida. (R0255-0257) This neutralization process, occurs prior to the discharge waters reaching "state waters" in the area near Black Dairy Road. Id. Interestingly, water with a high pH content is characteristic of all our natural limestone springs, and it is a key element put in lakes to counter act acid rain which is becoming more prevalent in Florida. (R0289)

Moreover, using DER's testing methods, there is no evidence in the record that CC exceeded the criteria for oils and greases. Oil and grease coming from CC's discharge waters was found in negligible quantities. (R0264) Such trace quantities of oil and grease are readily biodegradable; therefore, they do not cause harm to the environment. (R0266) Furthermore, DER admitted that most of the oil and grease in the area was the result of stormwater runoff coming from Black Dairy Road and Marlboro Roads. (R0244)

The United State Supreme Court held in Kellogg v. Sierra Club,<sup>4</sup> 427 U.S. 390, 96 S.Ct. 2718, 49 L.Ed. 2d 576 (1976), that its role, and the role of all courts regarding environmental

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<sup>4</sup> A case involving the National Environmental Policy Act (NEPA) a federal statute similar in intent to the "Florida Air and Water Pollution Control Act."

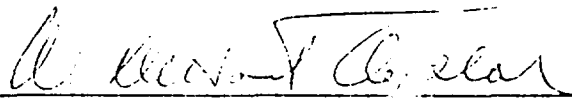
legislation, is to insure that the agency has considered the environmental consequences. The effect of CC's discharge is at most negligible. The record is replete with findings that there is no evidence of an actual or potential negative impact on the environment resulting from CC's discharge. Absent a showing of current or future significant impacts on water quality, CC should not be required to apply for a discharge permit. Moreover, CC has given DER reasonable assurances, as evidenced by rain and waste water channelling, containing and screening, that its discharge waters pose no harm to the environment. Therefore, CC is not a "stationary installation which will reasonably be expected to be a source of air or water pollution" as provided in Section 403.087 Florida Statutes.

#### CONCLUSION

In light of DER's improper assertion of jurisdiction, and its failure to prove actual or potential harm to the environment, DER has gone well beyond legislative intent and has encroached upon CC's fundamental rights in ordering CC to apply for a discharge permit. "Now is not the time to discard concepts of due process, fair play and substitute quick justice in the name

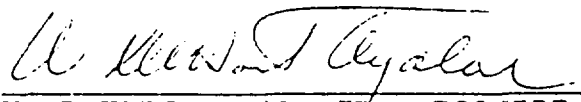
of kill the [alleged] pollutants". St. Regis Paper Company v. State, 237 So2d 797,798 (Fla. 1st Dist. 1970). For the foregoing reasons, CC respectfully requests that this Honorable Court reverse the Secretary's Final Order requiring CC to apply for a discharge permit pursuant to Section 403.087(1) Florida Statutes or in the alternative, to remand the case for further evidentiary findings.

FEW & AYALA

  
W. DeHART AYALA, JR., ESQUIRE  
501 East Jackson Street  
Suite 200  
Tampa, Florida 33602  
Attorney for Appellant

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by U.S. Mail to the Office of David K. Thulman, Esquire, Assistant General Counsel, DER, 2600 Blair Stone Road, Tallahassee, Florida 32301, on this 5 day of November, 1985.

  
W. DeHART AYALA, JR., ESQUIRE

CONVERSATION RECORD

Reference 13

Date: 11/12/86

File Name: Cast-Crete

Time: 11:45 AM

Contact Person: Henry Dominic

Phone No.: (SC ) 570-8000

Subject: \_\_\_\_\_

---

Henry Dominic of the FDER Southwest District indicated that he did not know the disposal method for spoil from the percolation pond, however, on-site landspreading is a reasonable possibility.

*Henry Dominic*



Sharvyn L. Smith  
Director

STATE OF FLORIDA

# Department of Administration

## Division of Administrative Hearings

Oakland Building, 2009 Apalachee Parkway

TALLAHASSEE

32301

Bob Graham  
Governor

Nevin G. Smith  
Secretary of Administration

May 3, 1985

**RECEIVED**

MAY 6 1985

Victoria Tschinkel  
Secretary  
Department of Environmental  
Regulation  
2600 Blair Stone Road  
Tallahassee, Fl. 32301

Dept. of Environmental Regulation  
Office of General Counsel

Re: Department of Environmental Regulation v.  
Cast-Crete Corporation of Florida  
Case No. 84-1647

Dear Secretary Tschinkel:

Enclosed is my Recommended Order in the referenced proceeding, along with the petitioner's Exhibits 3 through 8 and the respondent's Exhibits 1 through 9. I did not receive a transcript of the hearing.

Copies of this letter will serve to notify the parties that my Recommended Order and the record have been transmitted to you on this date. Pursuant to Section 120.57(1)(b)8, Florida Statutes, the parties are advised that they are allowed to file written exceptions thereto with the Department of Environmental Regulation.

Please furnish the Division of Administrative Hearings with a copy of the Final Order rendered in this proceeding so that our files will be complete.

Sincerely,

*Diane D. Tremor*

Diane D. Tremor  
Hearing Officer

DDT/jp  
Enclosures  
cc: David Thulman  
W. DeHart Ayala, Jr.

BEFORE THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

CAST-CRETE CORPORATION OF FLORIDA,

Respondent/Appellant

vs.

DEPARTMENT OF ENVIRONMENTAL REGULATION,

Petitioner/Appellee

CASE NO. 84-1647

SEP 9 1985

Dept. of Environmental Regulation  
Office of General Counsel

NOTICE OF APPEAL

NOTICE IS GIVEN that CAST-CRETE CORPORATION OF FLORIDA, Respondent/Appellant, appeals to Second District Court of Appeal Florida the Final Order of the State of Florida Department of Environmental Regulation dated August 8, 1985. The nature of the order is a final order requiring appellant to apply for an industrial waste water permit. This appeal is taken pursuant to provisions of Section 120.68 Florida Statutes and Rule 9.110 Florida Rules of Appellant Procedure.

FEW & AYALA

W. DeHART AYALA, JR., ESQUIRE  
501 East Jackson Street  
Suite 200  
Tampa, Florida 33602  
813/229-6401  
Attorney for Respondent/Appellant

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by U.S. Mail to the Office of David Thulman, Esquire, Attorney for DER, 2600 Blair Stone Road, Tallahassee, Florida 32301 on this 29th day of August, 1985.

W. DeHART AYALA, JR., ESQUIRE

- a) Discharge from ditch which is dredged yearly;
- b) Except for periods of heavy rainfall, there would be no water in the ditch if not for CAST-CRETE'S discharge;
- c) There was no evidence of actual harm to the environment;
- d) The substances present in CAST-CRETE'S discharge are neutralized by natural substances.

BEFORE THE  
DEPARTMENT OF ENVIRONMENTAL REGULATIONDEPARTMENT OF ENVIRONMENTAL REGULATION,  
STATE OF FLORIDA,

Petitioner,

vs.

CAST-CRETE CORPORATION OF FLORIDA,

Respondent.

RECEIVED  
CASE NO. 84-1647  
SEP 9 1985Dept. of Environmental Regulation  
Office of General CounselPETITION FOR STAY

COMES NOW the Respondent, CAST-CRETE CORPORATION OF FLORIDA, pursuant to Section 120.68 Florida Statutes and request the Florida DEPARTMENT OF ENVIRONMENTAL REGULATION to stay the imposition of its Final Order dated August 8, 1985, or in the alternative to stay the imposition and enforcement of civil and criminal penalties provided in Sections 403.141 and 403.161 Florida Statutes, and as grounds therefore says:

1. On August 8, 1985, the Honorable Victoria J. Tchinkel, Secretary of the State of Florida, Department of Environmental Regulation entered an Order requiring CAST-CRETE CORPORATION OF FLORIDA to apply for industrial waste water permit on before September 9, 1985, or to cease discharging waste water from its facilities.

2. CAST-CRETE CORPORATION OF FLORIDA has filed its Notice of Appeal with the Second District Court of Appeal, Florida, a copy of which is attached hereto, by which CAST-CRETE will appeal said Final Order.

3. That the Department, in the proceedings before the Hearing Officer made no showing of irreparable harm to the environment from waste water discharged from CAST-CRETE'S property. Moreover, the undisputed facts show:

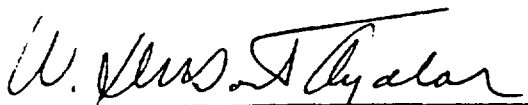
- a) Discharge from CAST-CRETE goes into a man-made drainage ditch which is dredged yearly;
- b) Except for periods of heavy rainfall, there would be no water in the ditch if not for CAST-CRETE'S discharge;
- c) There was no evidence of actual harm to the environment;
- d) The substances present in CAST-CRETE'S discharge are neutralized by natural substances.

4. That there are substantial meritorious issues as to the conclusions of law by both the Hearing Officer and the Secretary of the Department of Environmental Regulation concerning the interpretation and application of Chapter 403 Florida Statutes and the rules promulgated thereunder, which are in need of resolution by the Courts.

WHEREFORE, Respondent, CAST-CRETE CORPORATION OF FLORIDA, prays the DEPARTMENT OF ENVIRONMENTAL REGULATION of the State of Florida to enter its order staying its Final Order dated August, 8, 1985, until the completion the of appellee review process by the Second District Court of Appeal or in the alternative to enter its Order staying the imposition of Section 403.141 and Section 403.161 Florida Statutes until the conclusion of such appellate process.

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by U.S. Mail to the Office of David Thulman, Esquire, Attorney for DER, 2600 Blair Stone Road, Tallahassee, Florida 32301 on this 30th day of August, 1985.

FEW & AYALA

  
W. DeHART AYALA, JR., ESQUIRE  
501 East Jackson Street  
Suite 200  
Tampa, Florida 33602  
813/229-6401  
Attorney for Respondent



DISTRICT ROUTING SLIP

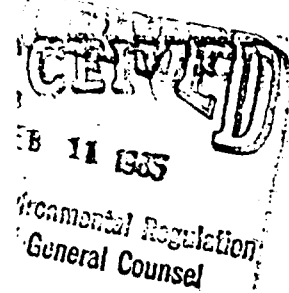
TO: Tom Gucciardo DATE: 2-12-85

ARIN SOUTH WEST DISTRICT  
TAMPA

C.C. TO:

— PENSACOLA — NORTHWEST DISTRICT .....	
— PANAMA CITY — Northwest District Branch Office .....	
✓ TALLAHASSEE — Northwest District Branch Office .....	
— TAMPA — SOUTHWEST DISTRICT .....	
— ORLANDO — ST. JOHNS RIVER DISTRICT .....	
— JACKSONVILLE — St. Johns River Subdistrict .....	
— GAINESVILLE — St. Johns River Subdistrict Branch Office .....	
— FORT MYERS — SOUTH FLORIDA DISTRICT .....	
— PUNTA GORDA — South Florida Branch Office .....	
— MARATHON — South Florida Branch Office .....	
— WEST PALM BEACH — South Florida Subdistrict .....	
— PORT ST. LUCIE — South Florida Subdistrict Branch Office .....	

SE NO.: 84-1657



*Joe*  
*F. Y. I. &*  
*for file*  
*Cast-Crete*  
*IW/Hills*

INDEXED ORDER

in Tampa, Florida,  
assigned Hearing  
Hearings. This case  
violation asserting  
from its property  
DA DEPARTMENT  
the Respondent, CAST-  
Administrative hearing, and  
Administrative Hearings  
the provisions of

COMMENTS:

Reply Optional ☐ Reply Required ☐ Info. Only ☐  
Date Due: \_\_\_\_\_ Date Due: \_\_\_\_\_

D. E. R.

FEB 14 1985

SOUTH WEST DISTRICT  
TAMPA

FROM:

Dave Thulman

TEL.:

SC278-9730

Rev. 5/80

For Complainant:

David K. Thulman, Esquire  
Assistant General Counsel  
State of Florida Department  
of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

For Respondent:

W. DeHart Ayala, Jr., Esquire  
501 East Jackson Street  
Suite 200  
Tampa, Florida 33602

ISSUES

The Complainant, Department of Environmental Regulation,  
alleges that the Respondent, CAST-CRETE CORPORATION OF FLORIDA,  
allows waste water to be discharged from its property in violation

FEB 14 1985

STATE OF FLORIDA  
DIVISION OF ADMINISTRATIVE HEARINGS SOUTH WEST DISTRICT  
TAMPA

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL REGULATION,

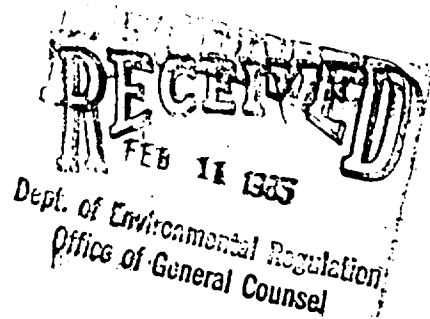
DOAH CASE NO.: 84-1657

Complainant,

vs.

CAST-CRETE CORPORATION OF  
FLORIDA,

Respondent.



RESPONDENT'S PROPOSED RECOMMENDED ORDER

This case was heard pursuant to notice in Tampa, Florida, on January 16-17, 1985, by Diane Tremor, assigned Hearing Officer of the Division of Administrative Hearings. This case was presented on Complainant's notice of violation asserting that CAST-CRETE discharged certain wastes from its property requiring a permit from the STATE OF FLORIDA DEPARTMENT ENVIRONMENTAL REGULATION (Department). The Respondent, CAST-CRETE filed a timely request for an administrative hearing, and the matter was referred to the Division of Administrative Hearings to conduct a formal hearing pursuant to the provisions of Section 120.57, Florida Statutes.

Appearances

For Complainant:

David K. Thulman, Esquire  
Assistant General Counsel  
State of Florida Department  
of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

For Respondent:

W. DeHart Ayala, Jr., Esquire  
501 East Jackson Street  
Suite 200  
Tampa, Florida 33602

ISSUES

The Complainant, Department of Environmental Regulation, alleges that the Respondent, CAST-CRETE CORPORATION OF FLORIDA, allows waste water to be discharged from its property in violation

of Department regulations and that a permit is therefore required. Cast-Crete argues that a permit is not required, nor should it apply for one since the discharge does not constitute "pollution" as defined under applicable Florida Statutes and Department regulations. The following issues of fact and law were considered:

(a) Is Cast-Crete a source of water "pollution" as set forth in Section 403.087(1) Florida Statutes.

(b) Is Cast-Crete an "installation" as set forth in Section 403.087(8) Florida Statutes.

(c) Does Cast-Crete discharge "waste" as set forth in Section 403.031(5) Florida Statutes.

(d) Does the discharge of water from Cast-Crete's plant violate Florida Administrative Code Rule 17-3.061(2)(1).

(e) Does the discharge of water from Cast-Crete's plant violate Florida Administrative Code Rule 17-3.061(2)(0).

(f) Is the receiving water for discharge from Cast-Crete's plant surface water, as defined in Florida Administrative Code Rule 17-3.021(28).

(g) Has Cast-Crete degraded the minimum criteria for surface waters under Florida Administrative Code Rule 17-3.051.

(h) Has DER complied with the requirements of Section 403.06 Florida Statutes in classifying Class III waters.

(i) What is the classification of receiving waters.

(j) Where do state waters begin as defined under Florida Administrative Code Rule 17-4.04(17).

(k) What is the proper area to determine natural "background" water.

(l) What is the specific conductance of water in the natural background.

(m) What the pH of natural background water.

(n) Where do Class III waters begin.

(o) Where does DER's jurisdiction begin.

(p) Does DER have jurisdiction over a county drainage ditch which is dredged and filled annually.

(q) Has DER abdicated jurisdiction, for environmental purposes, over a drainage ditch which is exempted from dredge and fill permitting requirements.

(r) If Cast-Crete is not a source of "pollution", is it required to apply for a permit.

(s) If Cast-Crete does not discharge "wastes" is it required to apply for a permit.

(t) Does the cost/benefits justify requiring Cast-Crete to apply for a permit as required by Rule 17-3.011(18)(c).

(u) Do the economic costs to Cast-Crete out-weigh the environmental benefits derived from forcing Cast-Crete to apply for a permit as prohibited by Rule 17-3.011(18)(c).

(v) Do "man induced conditions which cannot be controlled or abated" exist so that there is no reasonable relationship between economic, social, and environmental cost and restoration provided by Rule 17-3.021(15)(c).

#### FINDINGS OF FACT

1. The Department is the administrative agency of the State of Florida which has the authority to administer and enforce the provisions of Chapter 403 Florida Statutes and the rules promulgated under Florida Administrative Code Chapter 17.

2. Cast-Crete's property is located on the west side of State Road 579, 3/4 mile north of Interstate 4, Section 28, Township 28 South, Range East, Hillsborough County, Florida.

3. Cast-Crete's property lies on the west side of State Road 579 and below the elevation of a land fill area used by Hillsborough County to deposit garbage and other refuse. During periods of rainfall, water flows from the landfill area, west across State Road 579 and on to Cast-Crete's property. This water together with rainwater falling on Cast-Crete's property is channeled to the northwest corner of the property, through a settling pond, a flume, and into a county maintained drainage ditch.

Containment of the rainwater has prevented flooding of neighboring residences.

4. Cast-Crete operates a batch plant and manufactures concrete products such as reinforced beams, lintels, seals and drainage structures on the property. Although Cast-Crete uses lubricating oil to facilitate the removal of its products from the confining forms, the forms are totally enclosed and not subject to scouring by rainwater.

5. Because of DOT requirements, among others, Cast-Crete must constantly wet piles of crushed limestone (aggregate) which it uses in its concrete mixtures and the excess water which comes from the aggregate piles flows to several holding ponds in the northwest corner of the property. This water contains dissolved limestone, lime and limestone particles suspended in the water. Limestone particles are precipitated out of the water in the settling ponds.

6. Because of the continued wetting of the aggregate, water flows through the settling ponds and off of Cast-Crete's property at the approximate rate of 4.8 gallons per minute. This water flows into a drainage ditch originally dug by Cast-Crete and now maintained by Hillsborough County which runs westerly over 1/4 mile to a culvert at Black Dairy Road. The ditch continues westerly past Marlboro Road and then turns northerly approximately another 1/4 mile until it reaches a swamp.

7. The drainage ditch is maintained by Hillsborough County and is dredged by dragline on an annual basis.

8. Ninety percent of the water which flows from Cast-Crete's property, except during times of rainfall, is due to wetting of the piles of aggregate which is a rock found abundantly and naturally throughout the State of Florida.

9. Cast-Crete has constructed a skimming device to remove any oil or grease floating on the surface of the settling pond prior to its discharge from its property.

10. Water flowing from Cast-Crete's property, except during times of heavy rainfall, provides a thin stream of water in the drainage ditch approximately 5 inches wide by 1 inch deep.

11. But for the water flowing from Cast-Crete's property, there would be no water in the ditch except during periods of heavy rainfall.

12. State water begins approximately 50 yards east of Black Dairy Road and extends to the water in the drainage system west of that point.

Accordingly, the Department's jurisdiction over water in the drainage ditch does not begin until 50 yards east of Black Dairy Road.

13. Background water is found at the 6 Mile Creek area which closely approximates the characteristics of the drainage ditch into which Cast-Crete's discharge water flows at the point where state waters begin.

14. At the point where state waters begin, water flowing from Cast-Crete does not raise the pH one point above background water.

15. Where state waters begin, specific conductance is is not elevated above acceptable limits.

16. Specific conductance does not indicate the chemical content of water and, therefore, does not necessarily indicate the presence of "pollution".

17. High pH and specific conductance in water flowing from Cast-Crete's property is due to the presence of calcium carbonate and calcium hydroxide which are neutralized by naturally occurring carbonic acid and bicarbonate ion.

18. Calcium carbonate found in water flowing from Cast-Crete's property is, during the process of neutralization, being turned back into limestone.

19. Water flowing from Cast-Crete's property using the Department's testing methods, contains no detectable limits of oil and grease. However, oil and grease are present on the surface of waters in the area of Black Dairy Road and Marlboro Road due to rainwater runoff from these roads.

20. Turbidity occurring at the point where state waters begin is due predominately from ditch scouring rather than from water flowing from Cast-Crete's property.

21. Aquatic organisms and plant life are not adversely affected by water flowing from Cast-Crete's property. However, such wildlife is affected by annual dredging and filling of the county maintained drainage ditch.

#### CONCLUSIONS OF LAW

1. The Department of Environmental Regulation Rules require a reasonable interpretation of the provisions contained in the rules. See, e.g., 17-3.011(13). The commission, enacting the rules, has recognized the complexity of water quality management and the necessity to temper regulatory actions with technological progress and the social and economic well being of people. Moreover, without such moderating provisions, the commission points out that it would not have adopted the rules pertaining to generally applicable water quality standards set forth in Rule 17-3.011(18)(d). Reasonableness is further shown under 17-4.04(i) by exempting man-made canals and drainage ditches from permitting requirements. Further, under Rule 17-4.03, reasonableness is the bench mark necessary to decide whether a facility will be considered a source of "pollution".

2. In the instant case, under Florida Statute 403.031, "pollution" must be present in "waters of the state" in order to require permitting. It is, therefore, critical to determine where "waters of the state" begin.<sup>1</sup> The presence of "waters of

<sup>1</sup> Department employees have been unable to agree where their jurisdiction begins. See, e.g., testimony of Andrew Berry, William Kardash and Cast-Crete's Exhibit #6.

of waters (Rule 17.3021(30)) could not apply and the Department had no jurisdiction over those waters.

3. Moreover, because water found in the drainage ditch, at the point of discharge, is there solely as a result of discharge from Cast-Crete's property it would militate against a finding of Department jurisdiction over such water. In any event, it appears that the Department has relinquished jurisdiction over drainage drainage ditches under Rule 17-4.04(i).

4. Rule 17-4.021 provides for the transferability of definitions, and, therefore, the definition of pollution in Chapter 17-3 must be transferred to Chapter 17-4 in deciding the issue of required permitting.

5. Although, Rule 17-3.061 provides general criteria for surface water, a violation of which constitutes pollution, such rule must, therefore, be read in pari materia with the definition of pollution found in Chapter 17-3.021(19). Accordingly, the burden was on the Department, to prove by the greater weight of the evidence, that water from Cast-Crete's property, where entering state waters, contained "substances, contaminates... in quantities or levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, including outdoor recreation" even though such water might cause receiving waters to exceed certain specific criteria. This the Department failed to do. To hold otherwise, would render the legislature's definition of "pollution" meaningless.

6. Moreover, the Department failed to prove by the greater weight of the evidence, that Cast-Crete degraded the minimum criteria of surface waters set forth in Rule 17-3.051.

7. The greater weight of the evidence shows that Cast-Crete, within the definition of pollution, cannot reasonably be expected to be a source of pollution since the substances contained in its discharge water are neutralized by naturally occurring substances



and the Department has produced no evidence of harm to the environment. (See, report of Dr. Robert Braman PhD and Dr. Bruce Cowell, PhD, attached hereto) To the contrary, in spite of annual dredging and filling of the drainage ditch, the water provided by Cast-Crete has promulgated a flourishing biological community. Interestingly, high pH is a typical characteristic of water flowing from all natural limestone springs in the State of Florida.

8. Under the provisions of Rule 17-4.02(9), a permit is not required unless the facility may "reasonably be expected to be a source of pollution" (emphasis supplied). Rule 17-4.03 prohibits the operation of a facility or installation which will reasonably be expected to be a source of "pollution". (emphasis supplied) Pollution is defined under Rule 17-3.021(19) as follows:

"...presence in the outdoor atmosphere or waters of the state of any substances, contaminants, noise, or man-made or man induced alterations of the chemical, physical, biological, or radiological integrity of air or water in quantities or levels which are, or may be, potentially harmful or injurious to human health or welfare, animal or plant life, or property, including outdoor recreation."

9. Since no permit is required, unless it is shown by the greater weight of the evidence, that an installation or a facility can be reasonably expected to be a source of pollution, then, no permit can be required unless this burden is met by the Department. Similarly, Cast-Crete cannot be required to apply for a permit without such proof by the Department. To require otherwise, would unnecessarily subject Cast-Crete to the burdensome, time consuming and expensive process of permit application under Chapter 17-4 of the rules. The Department failed to present any proof pertaining to ground water discharge or requirements for permitting, and, therefore, Cast-Crete cannot be compelled to apply for such permit.

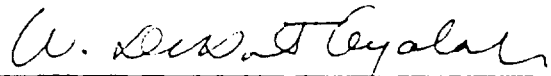
RECOMMENDATION

Having found that Cast-Crete is not causing "pollution" under any reasonable interpretation of the law, it is,

Recommended:

Cast-Crete is not required to apply for any permit set forth in Chapter 17-4 of the Department Rules.

Respectfully Submitted,



W. DeHART AYALA, JR., ESQUIRE  
FEW & AYALA  
501 East Jackson Street  
Suite 200  
Tampa, Florida 33602  
813/229-6401

Attorney for Respondent

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by U.S. Mail to David K. Thulman, Esquire, Assistant General Counsel, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301, Attorney for DER, on this 7th day of February, 1985.



W. DeHART AYALA, JR., ESQUIRE

STATE OF FLORIDA  
STATE BOARD OF CONSERVATION

FLORIDA GEOLOGICAL SURVEY

Robert O. Vernon, Director

---

REPORT OF INVESTIGATIONS NO. 25

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WATER RESOURCES OF HILLSBOROUGH  
COUNTY, FLORIDA

By  
C. G. Menke, E. W. Meredith, and W. S. Wetterhall

U. S. Geological Survey

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Prepared by the  
UNITED STATES GEOLOGICAL SURVEY  
in cooperation with the  
FLORIDA GEOLOGICAL SURVEY,  
HILLSBOROUGH COUNTY  
and the  
CITY OF TAMPA

TALLAHASSEE, FLORIDA  
1961

Page  
14  
-  
ng 13  
ng 82  
ng 92  
d  
92  
f  
93

## WATER RESOURCES OF HILLSBOROUGH COUNTY, FLORIDA

By  
C. G. Menke, E. W. Meredith, and W. S. Wetterhall  
U. S. Geological Survey

### ABSTRACT

Hillsborough County is near the west coast of central Florida and is comprised of 1,040 square miles of land. The population was about 400,000 in 1960.

This report is an evaluation of the basic hydrology of the county and of some of the major factors that affect the available fresh water supply.

An average of 1,400 mgd (million gallons per day) of fresh water is potentially available in the county—1,000 mgd of surface water and 400 mgd of ground water. This is enough to supply 1,250,000 people using 1,100 gpd (gallons per day) per capita, if all the flood waters could be stored for use.

The fresh water supply is comprised of about 2,500 mgd of rainfall on the county, of 300 mgd surface-water inflow, and of 100 mgd ground-water inflow to the county. About 1,500 mgd is returned to the atmosphere by evapotranspiration.

Three rivers, the Hillsborough, Alafia, and Little Manatee rivers, have an average combined flow of 508 mgd and drain about 70 percent of the county. The average flow of the Hillsborough River is 173 mgd, of which about 23 mgd is used by the city of Tampa for its municipal supply. The average flow of the Alafia River is 220 mgd and of the Little Manatee River is 115 mgd. The observed minimum flow of the Hillsborough River was 31 mgd, of the Alafia River was 4.3 mgd, and of the Little Manatee River was 0.8 mgd. The flow of the Alafia River is used to dispose of industrial wastes, and the flow of the Little Manatee River is wasted to the sea.

Water may be obtained from three aquifers. The nonartesian aquifer, composed of surface sands, yields up to 200 gpm (gallons per minute) per well. The shallow artesian aquifer, composed of limestone and sand beds in the Hawthorn formation of Miocene age, yields up to 500 gpm, and the principle artesian aquifer, composed of limestones of Tertiary age lying below the Hawthorn formation, yields up to several thousands gpm per well.

The coefficient of transmissibility of the principal artesian aquifer ranges from about 75,000 to 220,000 gallons per day per foot, and the coefficient of storage from 0.00005 to 0.002 gallons per square foot per foot. The coefficient of leakance, in gallons per day per square foot under a unit gradient divided by the thickness in feet of the confining beds above and below the aquifer, is 0.002 at the site of the Tampa well field 6 miles west of Plant City.

Most of the 67 mgd of ground water used in the county is derived from the principal artesian aquifer. Movement in the aquifer is primarily through the zones of high permeability that are associated with joints and faults. Locally, these zones behave as aquifers when they are pumped or recharged at high rates. The aquifer is recharged through sinkholes and through the sands and clays that overlie it, and large amounts of water are discharged from the aquifer to streams in the northern half of the county and to the bay.

The water level in the nonartesian aquifer is generally within a few feet of the land surface. Water levels in the shallow artesian aquifer are erratic areally. The piezometric surface of the principal artesian aquifer is higher than 100 feet in the northeastern part of the county and generally slopes toward Tampa Bay. Troughs in the piezometric surface extend inland, indicating that water is discharged from the aquifer into the Hillsborough and Alafia rivers.

Dissolved materials of surface waters was generally less than 250 ppm (parts per million) in the county. Notable exceptions are the Alafia River, with an average dissolved-materials concentration of 292 ppm and a maximum of 658 ppm, and Sulphur Springs with an average of 500 ppm and a maximum of more than 1,000 ppm. Most of the streams have dissolved materials of less than 100 ppm but contain colored organic materials leached from vegetation.

Water in shallow aquifers appears to have less than 100 ppm dissolved materials in most of the county and may contain organic color in quantities ordinarily less than those found in streams. Ground water found between depths of 100 and 200 feet generally had less than 500 ppm of dissolved materials except in the coastal areas.

Where the piezometric surface is more than 30 feet above sea level, ground-water supplies containing less than 500 ppm of dissolved materials may be obtained at a depth below sea level not exceeding 40 times the elevation of the piezometric surface above sea level. Where the elevation of the piezometric surface is less

ELEVATION, IN FEET REFERRED TO MEAN SEA LEVEL

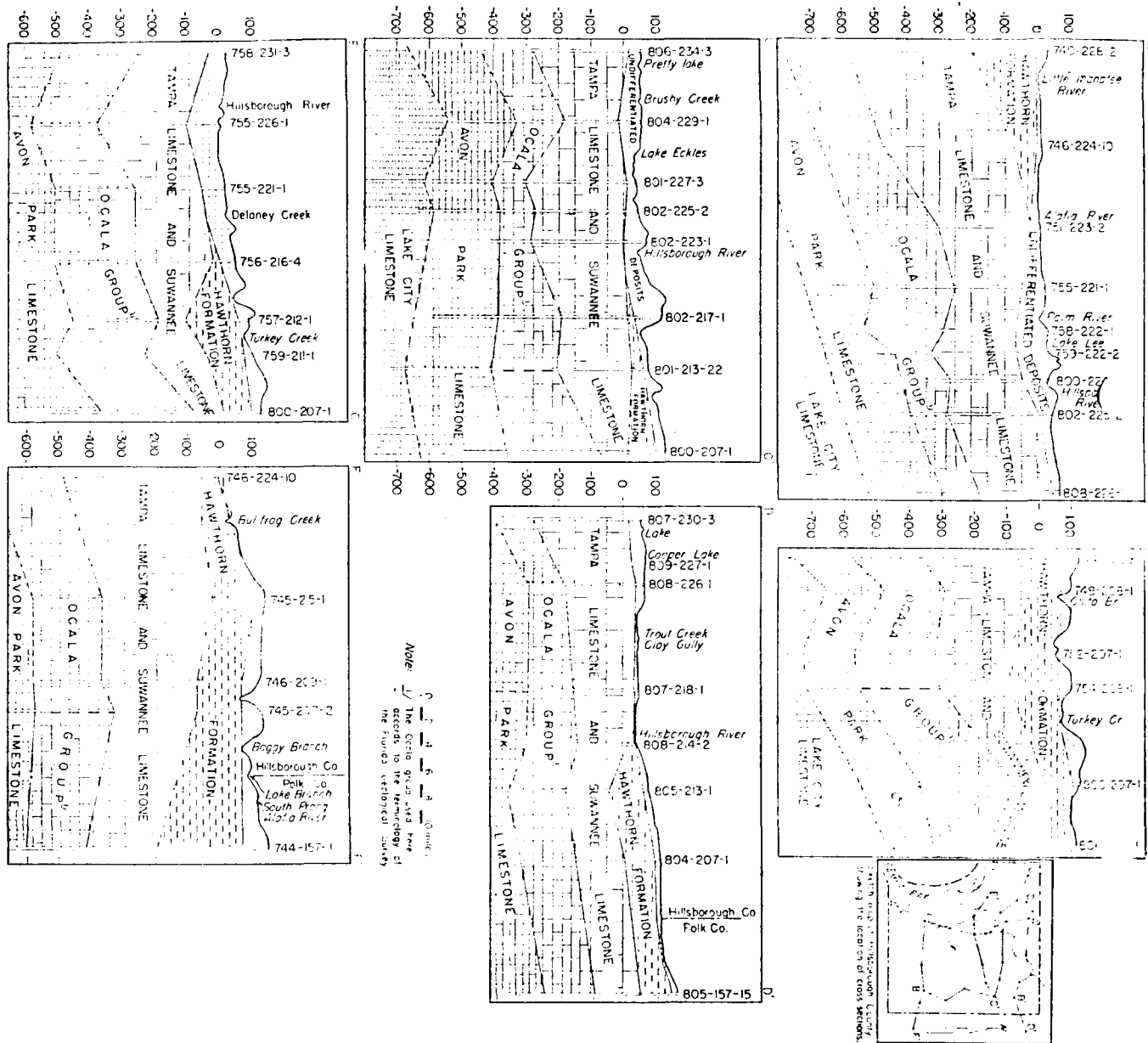


Figure 6. Geologic cross sections through Hillsborough County, Florida.

will rise above the top of the aquifer where tapped. Where the piezometric surface is lower than the water table, the water may move downward from the nonartesian aquifer into the artesian aquifer. Where the water table is lower than the piezometric surface, water may move upward from the artesian aquifer into the nonartesian aquifer or to flowing wells and springs. Ground water in Hillsborough County occurs under both artesian and nonartesian conditions.

#### WATER-TABLE AQUIFER

The undifferentiated surface sands and clays generally contain water under water-table conditions in Hillsborough County, but artesian conditions may occur locally. The water in the aquifer is derived from local rainfall, and the water table is only a few feet below the ground surface.

Wells deriving water from the sand are constructed by driving a screened well point into the saturated zone or, on the high "prairies," by sinking a pipe to the top of a layer of hardpan and chiselling a hole through the hardpan into the underlying sand. The well is then pumped until the water is clear. Drive-point wells are generally less than 20 feet deep and yield about 5 gpm.

The wells developed below the hardpan are usually from 8 to 16 feet deep and may yield more than 200 gpm where the hardpan is sufficiently thick and strong to allow development of large cavities under it.

Generally water is not available in desirable quality or quantity from the water-table aquifer, and it is not a very important source of supply in the county.

#### SHALLOW ARTESIAN AQUIFER

Wells developed in the sand and limestone beds of the Hawthorn formation in the southern half of the county yield up to about 500 gpm of water of relatively poor quality. The advantages of developing wells in this aquifer are that shallower wells and less expensive pumps are required if only small to moderate yields of water are needed. The saving effected could offset the advantage of having better quality water from the deeper aquifers. The aquifer in the Hawthorn formation, though important in Polk County, is of minor importance throughout the small area of Hillsborough County in which it occurs.

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## PRINCIPAL ARTESIAN AQUIFER

The principal artesian aquifer includes the units described by Stringfield (1936, p. 124-128) and the Floridian aquifer of Parker (1955, p. 188-189). Parker (op. cit.) includes the Lake City limestone, Tampa limestone and, where hydrologically connected, the Hawthorn formation in the Floridan aquifer.

The physical limits of the aquifer should be set at hydrologic boundaries. In Hillsborough County, there is no evidence of a hydrologic boundary at the base of the Lake City limestone. In addition, rotary drilling in the county has resulted in loss of mud circulation throughout the older Tertiary formations (i.e., Oldsmar and Cedar Keys limestones) and possibly the upper part of the Lawson limestone of Cretaceous age. Loss of circulation indicates the presence of cavities that, in all probability, are the result of solution by ground water. Therefore, the entire Tertiary system from the base of the Hawthorn formation to the top of the Gulf series (as used by the Florida Geological Survey) of Cretaceous age is included in the principal artesian aquifer of this report. The general occurrence of cavities in the Eocene rocks and the inferred presence of similar cavities in the Oldsmar and Cedar Keys limestones indicate ground-water movement to at least that depth.

Limestone, more or less dolomitized, is the dominant lithologic component of the aquifer. Zones of high permeability are distributed erratically through the aquifer. These zones have not been traced over great distances. It is known from examination of caves in other areas that most horizontal water courses in limestone end in vertical openings that intersect other horizontal cavities at different levels. Similar conditions are assumed to be responsible for the hydrologic continuity observed in the principal artesian aquifer in Hillsborough County.

The hydraulic systems just described are limited in vertical extent by layers of rocks of low permeability. The rocks of the upper part of the Ocala group tend to restrict this system. The Tampa and Suwannee limestones, which are a hydrologic unit, comprise the aquifer above the Ocala. The few available data indicate that the formations underlying the Ocala group to the greatest depth commonly penetrated by water wells tend to form another gross hydrologic unit. The two systems are connected hydraulically by solution openings along structural planes that probably are faults. The vertical permeability of these openings is sufficient to allow approximate equilibrium to obtain between

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the two systems when the time of interchange of water is great and the amount of water interchanged is small. Where either system is stressed by a local discharge through a large spring or well, the vertical movement of water is relatively small and the two systems behave as separate aquifers. Thus, throughout most of the county the total limestone section is essentially a hydrologic unit, but wherever either system is stressed by large volumes of discharge the Tampa and Suwannee limestones act as an aquifer, separate from the limestones below the Ocala group.

Several thousand gallons per minute can be pumped from any of the several zones in the aquifer. The specific capacity of the well depends on the size and continuity of the cavities penetrated by the well.

Sulphur Springs (801-227-B) flows an average of about 37 mgd. Based on chemical analyses of water from the spring as compared with water from well 801-227-3, about 90 percent of the water, or 33 mgd, is of good chemical quality derived from the Tampa and Suwannee limestones. The remaining 4 mgd consists of highly mineralized water from below the Ocala group. The proportions of minerals in the spring water are different from those in sea water, indicating that the concentration and chemical character of the water do not reflect salt-water intrusion from Tampa Bay. Instead, the water probably is diluted connate water. The connate water is derived from older rocks that have not been flushed by fresh water as have the more recent rocks near the surface. Concentrations of chloride of more than 69,000 ppm (Black and Brown, 1953) are known to occur in the older rocks in Florida. These rocks are rich in gypsum and anhydrite from which sulfate could be dissolved, giving rise to the type of water occurring in well 801-227-3.

The movement of water in the Tampa and Suwannee limestones was traced by introducing 8 pounds of sodium fluorescein into a sinkhole about 1,000 feet northwest of Blue Sink. During the test, the dye followed a sharply angular and narrow course corresponding to the trends of regional structures. The dye moved one-half mile southwest, then  $1\frac{1}{2}$  miles southeast from Blue Sink (803-227-A), then southwestward to 801-226-A, and to Sulphur Springs. A number of randomly located points in the area were monitored but did not show any dye. Though the test was not made under ideal conditions, the results seem to be quite clearly indicative of structural control of ground-water movement in the area. The inferred upward movement of connate water along fault planes and the observed path of the dye are interpreted as evidence that

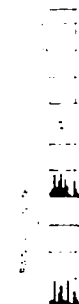
mean sea level in a well about 3 miles northeast of Plant City (803-204-1). Assuming an effective head of 85 feet, a maximum bottom elevation of 3,400 feet below sea level is computed for wells that will yield fresh water under those conditions. As the piezometric surface approaches sea level, the thickness of the usable part of the aquifer approaches zero and fresh water cannot be obtained.

#### RECHARGE TO UNDERGROUND FORMATIONS

Recharge of the water-table aquifer occurs whenever rain falls on the land surface. The water-table aquifer in Hillsborough County consists of sand of about 30 percent porosity. The water table rises approximately 3 inches for each inch of rainfall that reaches it. The water table generally is only a few feet below land surface even in dry periods, and areas that are not well drained are likely to become saturated and to have water standing on the surface after a heavy rain. The fluctuation in water levels, though rapid, is only a few feet in magnitude.

Recharge of the artesian aquifers is more complex. It occurs both by percolation through the so-called confining beds and by surface water and discharge from other aquifers entering through exposures of the aquifer in sinkholes. The water will flow into and through all sediments. The rate of flow is determined in part by the porosity and the hydraulic gradient. Observed water-level fluctuations in the principal aquifer (fig. 45) are quite rapid and of large magnitude, indicating that part of the recharge enters the aquifers in a short time at a high rate. The most probable places where high rates of recharge occur are the numerous sinkholes and points where the aquifer is near the surface. The latter places are not sufficiently numerous to be of areal importance. Thus, sinkholes are the apparent avenue of rapid recharge of the aquifer. An example of this type of recharge may be seen in the system of sinkholes between Linebaugh and Fowler avenues west of Florida Avenue in Tampa. The introduction of large quantities of water into the aquifer from a drainage ditch through these sinkholes causes an almost immediate and large rise in water level, in a well near Nebraska Avenue at Temple Terrace Highway (801-227-1). This well is hydraulically connected with cavities in the Tampa and Suwannee limestones. See figure 46b.

Interpretation of the hydrographs of the group of three wells (757-212-1, 2, 3) supports this hypothesis. The water level in Well 2, reflecting water-table conditions, rises several feet in response



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State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

Reference 18



# Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

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TO: \_\_\_\_\_ LOCN: \_\_\_\_\_  
FROM: \_\_\_\_\_ DATE: \_\_\_\_\_

TO: Cortland Hill

FROM: Craig Feeny *CF*

DATE: 9/26/87

SUBJECT: Wells near Cast-Crete, and future EPA Sampling

Ron Leins of the FDER Bureau of Operations indicated that several private wells having approximate depths of 90-100 feet were sampled at residences located south, southwest, and west of the Taylor Road Landfill (situated east of Cast-Crete). Priority pollutant analyses demonstrated that none of the wells were contaminated.

John Willis, also of the Bureau of Operations, indicated that EPA intends to sample several additional wells situated in the vicinity of Cast-Crete as part of a Forward Planning Study of the Taylor Road Landfill. Approximately 300 private wells will be screened for all priority pollutants during the study.

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION



# Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____	LOCTN: _____
To: _____	LOCTN: _____
To: _____	LOCTN: _____
From: _____	DATE: _____

TO: Cortland Hill  
FROM: Craig Feeny *CF*  
DATE: 9/26/87  
SUBJECT: Dwellings within 3 miles of Cast-Crete

According to the Thonotosassa (1974) and Brandon (1981), FL WSGS Quad Maps, approximately 3000 dwellings are located within 3 miles of Cast-Crete.

# INVESTIGATION OF GROUND-WATER CONTAMINATION IN THE VICINITY OF THE HILLSBOROUGH HEIGHTS LANDFILL

PREPARED FOR:

HILLSBOROUGH COUNTY, FLORIDA  
DEPARTMENT OF SOLID WASTE



SCS ENGINEERS

STEARNS, CONRAD AND SCHMIDT  
CONSULTING ENGINEERS, INC.

AND



GERAGHTY  
& MILLER, INC.  
*Ground-Water Consultants*

JULY 3, 1986

## SECTION 4.0

### HYDROGEOLOGY AND WATER QUALITY

#### 4.1 HYDROGEOLOGIC FRAMEWORK

##### 4.1.1 Water-Bearing Units

The uppermost geologic unit in the landfill area is a relatively thin layer of unconsolidated sand and clay, which overlies a thick sequence of limestone and dolostone extending to depths of several thousand feet. The limestone and dolostone units comprise the Floridan aquifer, which contains potable water to a depth of approximately 500 feet in the area of the landfills. Logs of test borings and wells indicate that the thickness of the sand and clay unit and the depth to the top of the limestone unit are quite variable.

A large amount of information on the subsurface geology is available in reports compiled since 1979 by various consulting firms (see Section 2.2). Exhibit 4-1 is a north-south geologic cross section through the Willabough Heights landfill; it is one of eight geologic cross sections presented in Appendix B, that were prepared by Seaburn & Robertson, Inc., [4-1] during an investigation of the proposed expansion of Taylor Road landfill. Exhibit 4-2 is a map of the landfill area showing the locations of geologic lineaments mapped by P.E. LaMoreaux & Associates [4-2]. Hydrologists believe that lineaments are reflections of subsurface solution features that might be preferred avenues for ground-water flow. Numerous solution cavities and zones of lost circulation were encountered during the drilling of test borings and monitor wells in the area, and the

potential may exist for ground water to move preferentially through such openings in directions different from those of the regional flow.

#### 4.1.2 Ground-water Movement

Generally, the surficial sand and clay deposits at the landfill sites are unsaturated, and monitor wells installed in those deposits are usually dry. Precipitation on the area mainly moves vertically downward through the sands and clays into the upper part of the Floridan aquifer. Where clays impede the downward movement of water, water-table conditions may exist and some lateral flow may take place through the surficial deposits.

Potentiometric surface maps have been prepared since 1955 as part of the scheduled settlement between the EPA, DEQ, and Hillsborough County. The maps are prepared twice a year to depict seasonal highs and lows of water levels in the Floridan aquifer. Previous potentiometric maps indicate that ground-water flow in the Floridan aquifer at the landfill sites is generally from northeast to southwest.

Exhibit 4-3 is a map of the potentiometric surface on March 20, 1966, and Exhibit 4-4 is a similar map for May 22, 1966. The maps, prepared from the highest and lowest water-level measurements (Exhibits 4-5) made in the monitor wells at the landfill sites during this investigation, show that elevations of the potentiometric surface are generally from about 17 to 19 feet a.s.l. or approximately 15 to 20 feet below the bottom of the Hillsborough wetlands landfill. However, two small mounds of potentiometric highs exist, with elevations of about 20 feet, one at the southwest corner of the Hillsborough

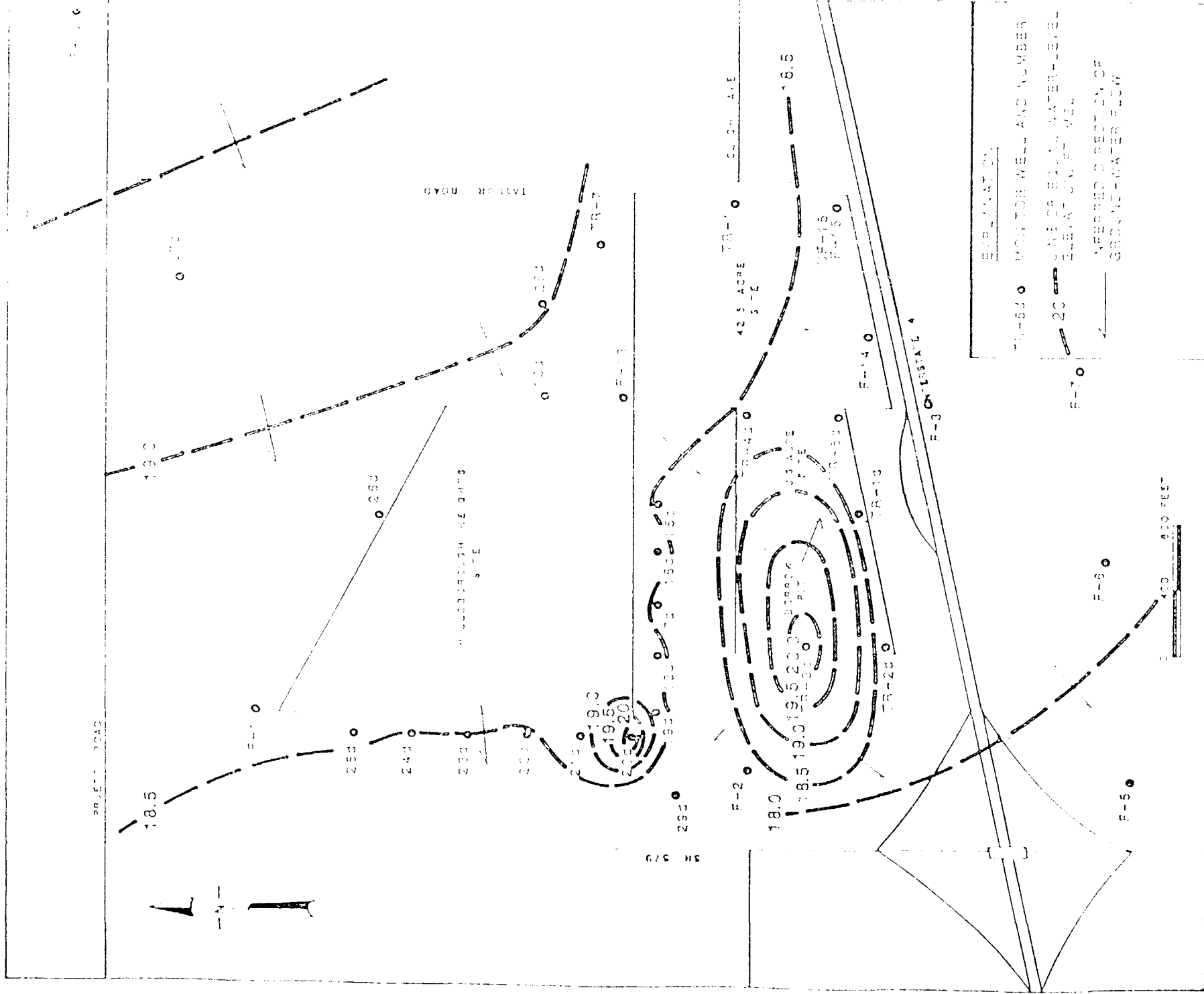


Figure 4-3. Contour map of groundwater levels, 1964-1965.



REF: 1043

1



heights landfill and the other at the borrow pit and the 10.6-acre site. These highs may be caused by seepage at these locations from surface water impoundments that are used for containment of stormwater runoff to the landfills. The water surfaces in the impoundments vary, but are generally several tens of feet above the potentiometric surface.

The contours on the map have been drawn to fit the water levels in the wells as precisely as possible. Ground water generally flows in a downgradient direction perpendicular to potentiometric surface contours, as indicated by the arrows on the two maps. The maps are similar, indicating that the regional flow of ground water is generally from northeast to southwest. However, in the vicinity of the two potentiometric highs, the local pattern of ground-water flow is radially outward, with some components of ground-water movement in almost all directions. Flow patterns beneath the landfills themselves can only be inferred, insofar as no monitor wells have been installed through the landfills.

It could be inferred from the contour pattern on the map for May 22, 1986, that some movement of ground water takes place toward the Hillsborough Heights landfill from the potentiometric high in the area of the borrow pit and the 10.6-acre site. However, the map for March 26, 1986, does not allow for such an interpretation, nor do two other rounds of water-level measurements made in April 1986.

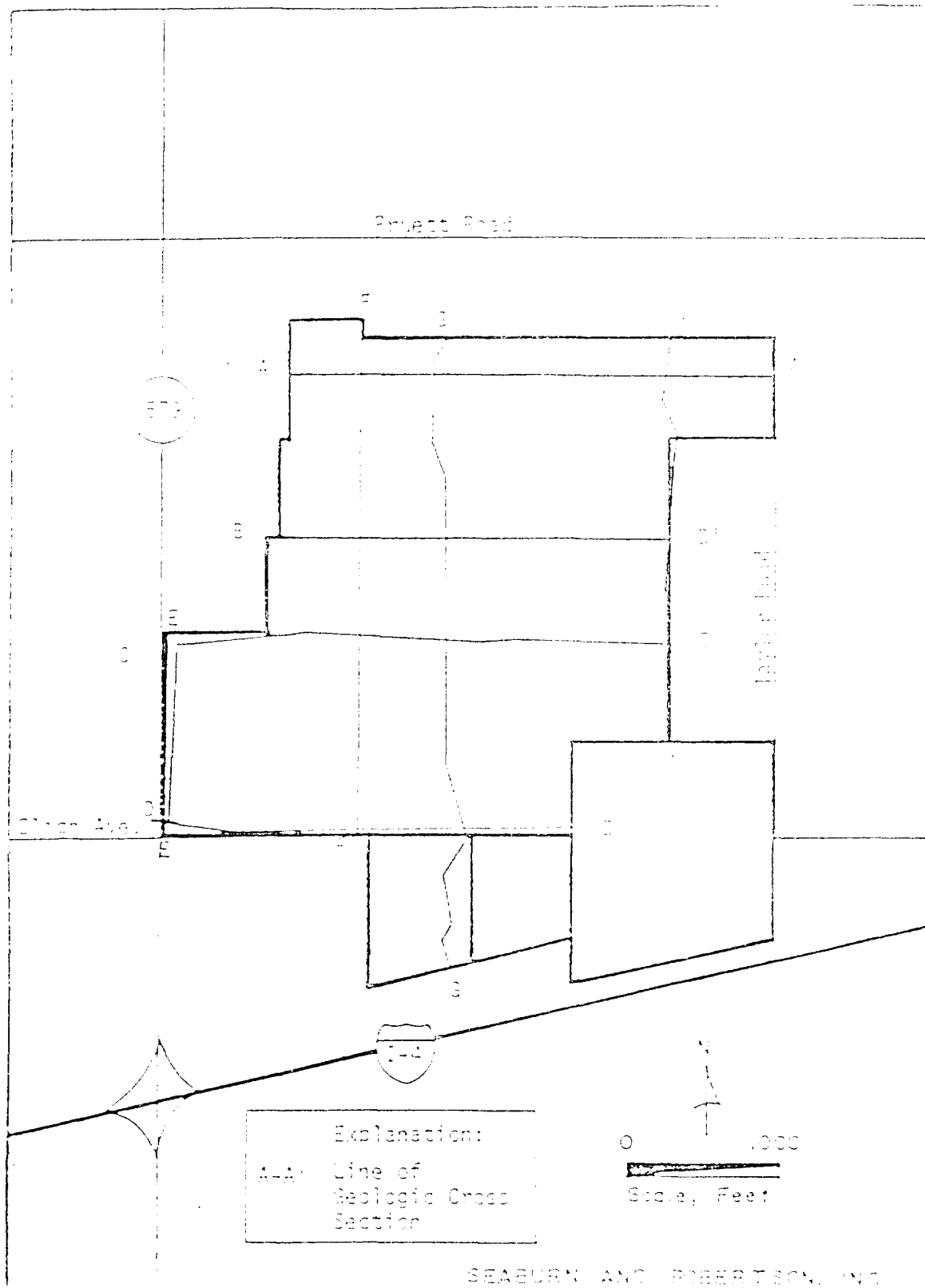
Most monitor wells in the vicinity of the landfills are less than 180-feet deep and tap the upper portion of the Floridan aquifer. Well DF-1a, located at the southeast corner of the Taylor Road landfill, was installed to monitor water quality and water levels in the Floridan aquifer at a depth of 210 to 310 feet.

water-level elevations observed in this well in 1979 and 1980. The 1980 measurements were slightly higher than those observed in the adjacent shallow Floridan aquifer monitor well F-15; one of the measurements was approximately 0.4 foot lower. These data suggest that the potential for downward movement of ground water within the Floridan aquifer at that location is low. No similar comparisons of shallow and deep water levels are available at other monitor wells at the landfills, but it is reasonable to assume that the potential for downward flow within the Floridan aquifer in the general area of the landfills is either low or non-existent.

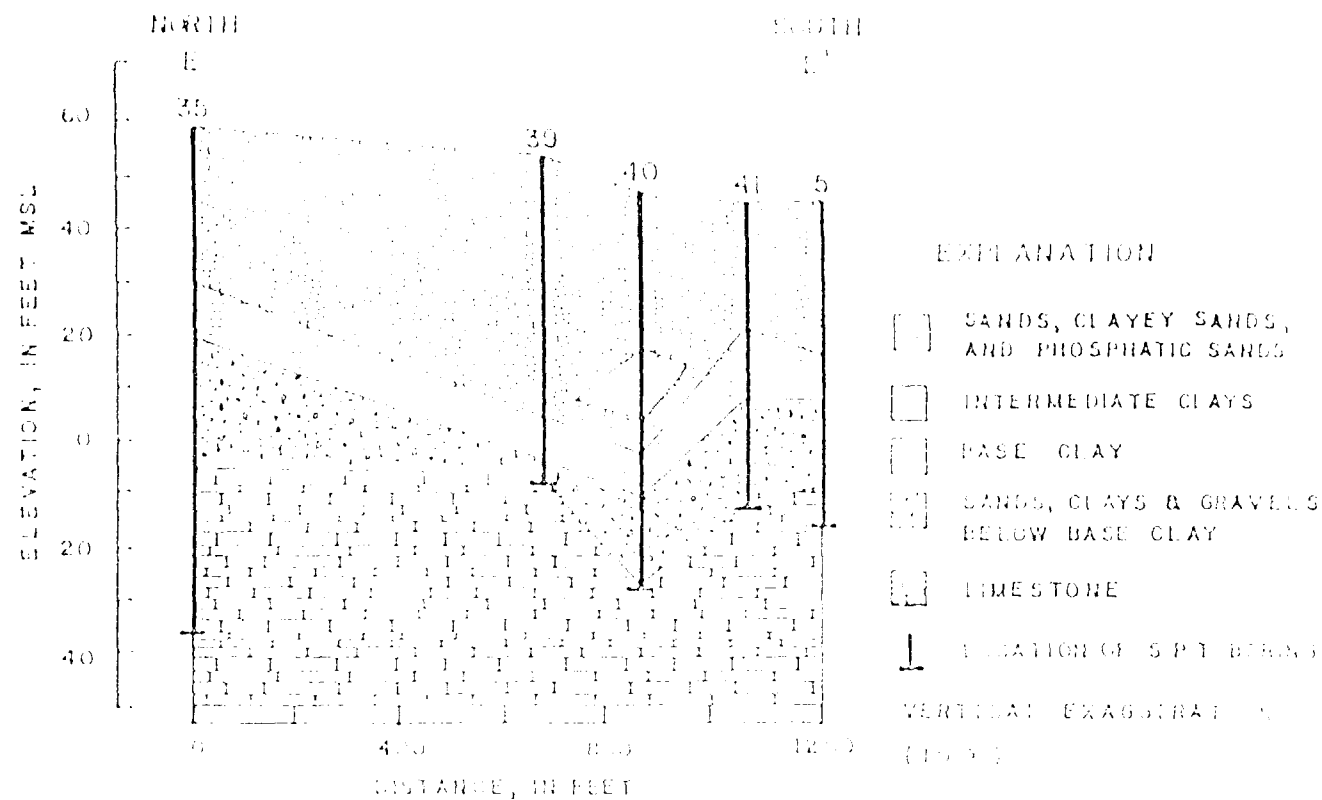
## 4.2 GROUND-WATER QUALITY

### 4.2.1 History of Monitoring

Since 1979, extensive monitoring of ground-water quality has been performed in the vicinity of the Taylor Road landfill, particularly in the area south of I-4 where a plume of contaminated ground water has been mapped extending generally southward from that landfill. Monitoring data indicate that the plume mainly contains low levels of volatile organic chemicals (VOCs). In general, with the exception of monitor well F-2 near the southwest corner of the entire landfill area and monitor well F-14 at the southwest corner of the Taylor Road landfill (Exhibit 4-2), no long-term upward trend in concentrations of total VOCs has been noted in monitor wells having a long period of record. Appendix C contains graphs of total VOC concentrations detected in samples collected from wells at and near all three landfills.



Location of Geologic Cross Section.



SEABORN AND ROBERTSON, INC.

GEOLOGIC CROSS SECTION E-E'



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# **Uncontrolled Hazardous Waste Site Ranking System**

## **A Users Manual (HW-10)**

Originally Published in  
the July 16, 1982, *Federal Register*

United States  
Environmental Protection  
Agency

1984

*irrigation only counts if possible to enter human food chain.*

Population served by ground water is an indicator of the population at risk, which includes residents as well as others who would regularly use the water such as workers in factories or offices and students. Include employees in restaurants, motels, or campgrounds but exclude customers and travelers passing through the area in autos, buses, or trains. If aerial photography is used, and residents are known to use ground water, assume each dwelling unit has 3.8 residents. Where ground water is used for irrigation, convert to population by assuming 1.5 persons per acre of irrigated land. The well or wells of concern must be within three miles of the hazardous substances, including the area of known aquifer contamination, but the "population served" need not be. Likewise, people within three miles who do not use water from the aquifer of concern are not to be counted. Assign a value as follows:

<u>Population</u>	<u>Assigned Value</u>
0	0
1-100	1
101-1,000	2
1,001-3,000	3
3,001-10,000	4
>10,000	5

DRAFT REPORT  
FOR  
TAYLOR ROAD SITE  
SEFFNER, FLORIDA  
FORWARD PLANNING STUDY

SEPTEMBER 9, 1986

DOCUMENT CONTROL NUMBER

**R E M II**

**PERFORMANCE OF REMEDIAL RESPONSE  
ACTIVITIES AT UNCONTROLLED  
HAZARDOUS WASTE SITES**

**U.S. EPA CONTRACT NO. 68-01-6939**

**CAMP DRESSER & MCKEE INC.**

**ROY F. WESTON, INC.**

**WOODWARD-CLYDE CONSULTANTS**

**CLEMENT ASSOCIATES, INC.**

**ICF INCORPORATED**

**C. C. JOHNSON & ASSOCIATES, INC.**



quality standards. A berm is constructed around part of the site which keeps runoff from leaving the site. Incidents of this berm washing out, however, have been reported by EPC. The connection of the site with the Floridan aquifer is unknown.

### 3.13 GOINS DRIVE SINKHOLE

The Goins Drive Sinkhole is a collapse sinkhole which is roughly 60 feet deep and 200 feet in diameter. The sinkhole is located approximately 4,300 feet southeast of the Taylor Road Site. In March 1984, a trash pile was discovered down in the sinkhole. This trash pile contained construction/demolition debris, pipes, automobile parts, appliances, asphalt roofing materials, and various bottles and cans. The present status of the sinkhole trash is unknown.

The sinkhole appears to drain the surface water runoff from the surrounding land. Residents report that even during periods of heavy rainfall, water does not pond in the sinkhole. Therefore, the ground water system is the only pathway for contaminant migration. One water sample taken in December 1983 from a private well drilled into the Floridan aquifer near the site revealed lead contamination well above drinking water standards. Subsequent sampling of this well and other private wells in the area has indicated no lead contamination.

### 3.14 REEVES SOUTHEASTERN, BAY DRUMS, PEAK OIL INDUSTRIES

The Reeves Southeastern, Bay Drums, and Peak Oil Sites are industrial sites located in the southwestern portion of the study area. All three of these sites are included on the National Priority List and are being investigated in other studies. These sites were, therefore, not investigated during this Forward Planning Study. They are only included in this report to indicate their presence in the study area.

mantle of clayey sand. How the landfill was constructed and how long it was in operation, however, are unknown. Information on the types of wastes disposed of is also presently unavailable, but there have been reports that a significant volume of pesticides may have been disposed of in the landfill.

The Mango Clay Pit appears to be part of an internally-drained drainage basin. No surface water conduits are apparent around the site and therefore the ground water system is the only pathway for contaminant migration. Surface water runoff infiltrates to the ground water system via drainage ditches, infiltration basins, or sinks before it has a chance to leave the site. The surficial aquifer is usually dry at this site so contaminants must migrate laterally through the Floridan aquifer. Ground water sampling by FDER in 1985 revealed the presence of VOCs, heavy metals, nitrates, chlorides, and pesticides in the Floridan aquifer near the site. Benzene and chlorobenzene were the two most commonly found VOCs.

### 3.12 CASE-CRETE CORPORATION

The Case-Crete Site is a large, ready-mix concrete plant which also does pre-fab form work. The site is located approximately 1,000 feet west of the Taylor Road Site and covers approximately 20 acres. Items such as reinforced beams, columns, pipe supports, etc. are produced in an open area. Lubricating oil is used to facilitate the removal of the product from the confining forms. The state and county also believe that Case-Crete uses solvents containing volatile organics to aid in form stripping operations. Industrial wastewater contaminated with lubricating oil, lime, concrete, cement, and other materials from various activities is directed to an unlined holding pond in the northwest corner of the property. Stormwater runoff is also directed to this pond.

Both a surface water system and the ground water system are probable pathways for contaminant migration. The wastewater pond discharges to a drainage ditch which leads to a swamp. This swamp is drained by a canal system that discharges into the Tampa By-Pass Canal. Water samples taken from the wastewater pond discharge have shown violations of Florida's water

CONVERSATION RECC

Reference 23

Date: 10/28

File Name: Cast-Crete

Time: 2:30 PM

Contact Person: Julie Gross (FDER-SW District

Phone No.: (SC ) 570-8000

Subject: Site access to Cast-Crete

---

Julie Gross of FDER (SW District) indicated that the property occupied by Cast-Crete is fenced.

*Craig Henry*

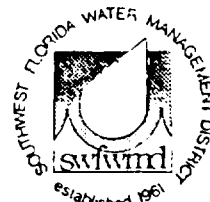
## SOUTHWEST FLORIDA WATER



2379 BROAD STREET, BROOKSVILLE, FLORIDA 33512-9712

PHONE (904) 796-7211 SUNCOM 628-3111

MICHAEL ZAGORAC, JR., *Chairman, Belleair* Wm. O. STUBBS, JR., *Vice Chairman, Dade City*  
 MARY A. KUMPE, *Secretary, Sarasota* WALTER H. HARKALA, *Treasurer, Plant City*  
 HORACE F. HERNDON, *Lake Wales* ROY G. HARRELL, JR., *St. Petersburg*  
 ROBERT T. BRAMSON, *M.D., Tampa* WILLIAM H. WILCOX, *Ph.D., Port Charlotte*



GARY W. KUHL, *Executive Director* DANIEL P. FERNANDEZ, *General Counsel*  
 WILLIAM K. HENNESSEY, *Deputy Executive Director* PETER G. HUBBELL, *Deputy Executive Director*

December 3, 1986

Mr. Craig Feeney  
 Department of Environmental Regulation  
 Twin Towers Office Bdg.  
 2600 Blair Stone Road  
 Tallahassee, Florida 32301-8241

RECEIVED  
 DEC 8 1986

BUREAU OF  
 OPERATIONS

RE: Well Construction Permit Listing

Dear Mr. Feeney:

Enclosed you will find copies of the above referenced listing  
 for the following areas:

<u>Sections</u>	<u>Township</u>	<u>Range</u>
21 & 27-33	28S	20E
28, 31 & 32	40S	20E

Please note that there are no permitted wells in the  
 following areas:

<u>Sections</u>	<u>Township</u>	<u>Range</u>
29 & 33	40S	20E

If I can be of any further assistance, please contact this  
 office.

Sincerely,

  
 Sandy Semegen  
 Permit Coordinator  
 Well Permitting, Licensing & Registration

SS:mh

Enclosures: as stated

DIAMETER: METHOD: USE: CAST PLP11:

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0			0	NN	H	II	L	A	0		

OWNER NAME H

NAME	DATE	TIME	TYPE	STATUS	REMARKS
BOLDING, EDWARD L	NO	000000	00	00	60
WILSON, ANDREW	NO	000000	00	00	57
EL THOMAS	NO	000000	00	00	57
U SCREIN	NO	000000	00	00	25
M J CARMS	NO	000000	00	00	115
HLMK LE HNS	NO	000000	00	00	108
BAUN, JOHN	NO	000000	00	00	123
R ERYANT	NO	000000	00	00	145
F L WEST	NO	000000	00	00	120
K FLEMING	NO	000000	00	00	99
U GIFFIN	NO	000000	00	00	135
F LEE WEST	NO	000000	00	00	140
J WILLIAMS	NO	000000	00	00	140
WILLIS, R	NO	000000	00	00	55
CHESTER, J	NO	000000	00	00	68
JEFFERY, K	NO	000000	00	00	119
GIBBARD, L	NO	000000	00	00	52
LEE, R	NO	000000	00	00	24
ALLSTATE HOMES	NO	000000	00	00	54
BROWN, DILLON	NO	000000	00	00	32
BUCHANAN, HERMAN	NO	000000	00	00	0
SCOTT, JAMES	NO	000000	00	00	0
MILLON, BARBARA	NO	000000	00	00	0

NR 0005

## PERMIT SUMMARY FOR YEAR GO THRU 99

BY: COUNTY:

BASIN: S:27 - 33 T:28 R:20 DEPTH:

DIAMETER: METHOD: USE: CASE DEPTH:

IN	PERMIT	S	T	A	U	S	N	LOCATION	D	CASE	WELL	U	B	G	O	I	R	S	L	T	H	OWNER NAME
		S	T	A	U	S	N	LOCATION	D	CASE	WELL	U	B	G	O	I	R	S	L	T	H	OWNER NAME
		S	T	A	U	S	N	LOCATION	D	CASE	WELL	U	B	G	O	I	R	S	L	T	H	OWNER NAME
	345871	E	0000	A	13	057	0	0	272820	2												RODERICK, L. E.
	314339	E	0000	A	13	057	0	0	272820	4	83	230			0							B E GOODSON
	332418	E	1057	A	13	057	0	0	272820	8	97	252			0							R C MAIN
	305772	C	1057	A	13	057	0	0	272820	10	111	525			0							AYALA, JUAN
	351018	C	1286	B	13	057	0	0	272820	4	0	265	Y		0							HILLSBOROUGH CO
	351644	C	1160	B	13	057	4	3	272820	4	70	150	Y		7							SHOP & GO
	379181	C	1369	B	13	057	3	4	272820	4	90	191	Y		6							MANNING, KATHLEEN
	397061	N	1958	B	13	057	0	0	272820	6	***	CANCELLED	***									NASRALLAH WATER SYSTEM INC.
	412721	C	1232	B	13	057	1	1	272820	8	145	350	Y	13	R							HILLSBOROUGH COUNTY SCHOOL BD
	345070	E	0000	D	13	057	0	0	272820	2												RODERICK, L. E.
	359003	C	2076	D	13	057	0	0	272820	2	52	85	N		0							HUFF, NOVELLAR
	387550	C	1232	D	13	057	0	0	272820	2	10	22	N		0							HILLSBOROUGH CO SOLID WASTE
	306710	E	0000	D	13	057	1	3	272820	3	51	97			0							J MARCUS
	306971	E	0000	D	13	057	0	4	272820	3	70	97			0							J McLELLAND
	307211	E	0000	D	13	057	0	1	272820	3	48	50			0							J FRANKLIN
	307226	E	0000	D	13	057	0	0	272820	3	70	80			0							B HILL
	311861	E	0000	D	13	057	0	0	272820	3	40	75			0							S R SUNDVAL
	315982	E	0000	D	13	057	0	0	272820	3	63	102			0							P BRIGHT
	324828	E	1204	D	13	057	0	0	272820	3	100	100			0							J BUTTLER
	344992	C	1855	D	13	057	0	0	272820	3	76	105			0							GILMORE, PAUL
	354612	C	2071	D	13	057	0	0	272820	3	42	84			0							MITCHELL, LUCY
	363871	N	1160	D	13																	

DATE 12/02/00 23:08:15

## SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

PAGE 2

## WELL CONSTRUCTION PERMITTING

## PERMIT SUMMARY FOR YEAR 00 THRU 99

HILLSBOROUGH

CITY: COUNTY: BASIN: 5:27 - 33 1:28 R:20 DEPTH: DIAMETER: METHOD: USE: CASE DEPTH:

PERMIT	S	N	C	H	Y	LOC	STR	A	DEPT	DEPT	T	R	S	D	C	P	R	H	F	USER-ID	LOT	H	OWNER NAME	
NUMBR	C	H	Y	LOC	STR	A	DEPT	DEPT	T	R	S	D	C	P	R	H	F	USER-ID	LOT	H	OWNER NAME			
389554	C	1232	0	13	057	0	0	272820	2	8	28	N	0	R	0				G-4	NO	HILLSBOROUGH	CO	SOLID WASTE	
389555	C	1232	0	13	057	0	0	272820	2	8	30	N	0	R	0				G-5	NO	HILLSBOROUGH	CO	SOLID WASTE	
389556	H	0000	0	13	057	0	0	272820	2	10	59	N	0	R	0				G-6	NO	HILLSBOROUGH	CO	SOLID WASTE	
389557	C	1232	0	13	057	0	0	272820	2	7	29	N	0	R	0				G-7	NO	HILLSBOROUGH	CO	SOLID WASTE	
389558	C	1232	0	13	057	0	0	272820	2	8	30	N	0	R	0				G-9	NO	HILLSBOROUGH	CO	SOLID WASTE	
389560	C	1232	0	13	057	0	0	272820	2	8	41	N	0	R	0				G-10	NO	HILLSBOROUGH	CO	SOLID WASTE	
389561	C	1232	0	13	057	0	0	272820	2	8	38	N	0	R	0				G-11	NO	HILLSBOROUGH	CO	SOLID WASTE	
389562	C	1232	0	13	057	0	0	272820	2	8	65	N	0	R	0				G-12	NO	HILLSBOROUGH	CO	SOLID WASTE	
389563	C	1232	0	13	057	0	0	272820	2	8	75	N	0	R	0				G-13	NO	HILLSBOROUGH	CO	SOLID WASTE	
389564	C	1232	0	13	057	0	0	272820	2	8	63	N	0	R	0				G-14	NO	HILLSBOROUGH	CO	SOLID WASTE	
389565	C	1232	0	13	057	0	0	272820	2	8	36	N	0	R	0				G-15	NO	HILLSBOROUGH	CO	SOLID WASTE	
389566	C	1232	0	13	057	0	0	272820	2	8	52	N	0	R	0				G-23	NO	HILLSBOROUGH	CO	SOLID WASTE	
389567	C	1232	0	13	057	0	0	272820	2	8	59	N	0	R	0				G-24	NO	HILLSBOROUGH	CO	SOLID WASTE	
389568	C	1232	0	13	057	0	0	272820	2	8	48	N	0	R	0				G-25	NO	HILLSBOROUGH	CO	SOLID WASTE	
389569	C	1232	0	13	057	0	0	272820	2	8	51	N	0	R	0				G-26	NO	HILLSBOROUGH	CO	SOLID WASTE	
389570	C	1232	0	13	057	0	0	272820	2	8	62	N	0	R	0				G-27	NO	HILLSBOROUGH	CO	SOLID WASTE	
389571	C	1232	0	13	057	0	0	272820	2	8	46	N	0	R	0				G-28	NO	HILLSBOROUGH	CO	SOLID WASTE	
389572	C	1232	0	13	057	0	0	272820	2	8	60	N	0	R	0				29	NO	HILLSBOROUGH	CO	SOLID WASTE	
389573	C	1232	0	13	057	0	0	272820	2	8	41	N	0	R	0				G-30	NO	HILLSBOROUGH	CO	SOLID WASTE	
389574	C	1232	0	13	057	0	0	272820	2	8	60	N	0	R	0				G-31	NO	HILLSBOROUGH	CO	SOLID WASTE	
389575	C	1232	0	13	057	0	0	272820	2	8	47	N	0	R	0				G-32	NO	HILLSBOROUGH	CO	SOLID WASTE	
357100	C	1232	0	13	057	0	0	272820	4													HILLSBOROUGH	CO	UTILITIES
357101	C	1232	0	13	057	0	0	272820	4	70	110								000000	NO	HILLSBOROUGH	CO	UTILITIES	
357678	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357679	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357680	C	1376	0	13	057	3	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357681	C	1376	0	13	057	3	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357682	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357683	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357684	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357685	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357686	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357687	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357688	C	1376	0	13	057	3	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357689	C	1376	0	13	057	3	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357690	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357691	C	1376	0	13	057	2	3	272820	4	100	180	Y	8	T	0				000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357775	C	1974	0	13	057	3	3	272820	4	37	37								000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	
357776	C	1974	0	13	057	4	3	272820	4	35	35								000000	NO	HILLSBOROUGH	HGTS	SANITARY LNDFL	

DATE 12/02/86 23:08:15

## SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

PAGE 3

## WELL CONSTRUCTION PERMITTING

PERMIT SUMMARY FOR YEAR 00 THRU 99

R:00055

BY: COUNTY: BASIN: S:27 - 33 T:28 R:20 DEPTH: DIAMETER: METHOD: USE: CASE DEPTH:

PERMIT	S	U	E	N	Y	Q	S	T	R	A	DEPTH	WELL	U	B	G	O	I	R	S	D	C	P	R	N	F	USER-ID	LOT	H	OWNER NAME
357777	C	1974	0	13	057	4	3	272820	4	81	81	0	R	51												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357778	C	1974	0	13	057	4	3	272820	4	35	35	0	R	0												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357779	C	1974	0	13	057	4	3	272820	4	75	75	0	R	50												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357780	C	1974	0	13	057	4	3	272820	4	27	37	0	R	0												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357781	C	1974	0	13	057	4	3	272820	4	85	85	0	R	49												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357782	C	1974	0	13	057	4	3	272820	4	35	35	0	R	0												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357783	C	1974	0	13	057	4	3	272820	4	78	78	0	R	51												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357784	C	1974	0	13	057	1	3	272820	4	40	40	0	R	0												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357785	C	1974	0	13	057	1	3	272820	4	100	100	0	R	73												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
357786	C	1974	0	13	057	3	3	272820	4	75	75	0	R	50												000000	NO		HILLSBOROUGH HGTS SANITARY LNDFL
350560	C	1974	0	13	057	3	3	272820	4	75	75	0	R	50												000000	NO		HILLSBOROUGH CO WASTE MGT INC.
350561	C	1974	0	13	057	3	3	272820	4	42	42	0	R	0												000000	NO		HILLSBOROUGH CO WASTE MGT INC.
369725	C	1974	0	13	057	3	1	272820	4	50	112	0	R	0												0027-0	NO		WASTE MANAGEMENT, INC.
369726	C	1974	0	13	057	2	2	272820	4	59	134	0	R	0												0028-0	NO		WASTE MANAGEMENT, INC.
369727	C	1974	0	13	057	2	2	272820	4	28	38	0	R	0												0028-5	NO		WASTE MANAGEMENT, INC.
369728	C	1974	0	13	057	3	1	272820	4	36	105	0	R	0												0027-5	NO		WASTE MANAGEMENT, INC.
369729	C	1974	0	13	057	3	3	272820	4	50	123	0	R	0												0029-0	NO		WASTE MANAGEMENT, INC.
369730	C	1974	0	13	057	3	3	272820	4	30	40	0	R	0												0029-5	NO		WASTE MANAGEMENT, INC.
369731	C	1974	0	13	057	3	3	272820	4	28	38	0	R	0												0030-5	NO		WASTE MANAGEMENT, INC.
357099	C	1232	0	13	057	0	0	272820	6	10	15	0	C	0												000000	NO		HILLSBOROUGH CO UTILITIES
357102	C	1232	0	13	057	0	0	272820	6	102	150	0	C	70												000000	NO		HILLSBOROUGH CO UTILITIES
357104	C	1232	0	13	057	0	0	272820	6	50	110	0	C	47												000000	NO		HILLSBOROUGH CO UTILITIES
357109	C	1232	0	13	057	0	0	272820	6	15	20	0	C	0												000000	NO		HILLSBOROUGH CO UTILITIES
368180	C	1232	0	13	057	0	0	272820	6	200	300	0	T	61												000000	NO		HILLSBOROUGH CO SOLID WASTE
410847	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410848	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410849	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410850	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410851	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410852	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410853	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410854	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410855	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410856	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410857	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410858	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410859	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410860	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY
410861	E	1232	0	13	057	0	0	272820	8																				HILLSBOROUGH COUNTY



DATE 12/22/86 23:08:15

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT  
WELL CONSTRUCTION PERMITTING

PAGE 4

1080005

PERMIT SUMMARY FOR YEAR 00 THRU 99

BY: COUNTY: BASIN: S:27 - 33 T:28 R:20 DEPTH: DIAMETER: METHOD: USE: CASE DEPTH:

PERMIT	S	Y	A	T	U	L	I	C	N	Y	Q	S	T	R	A	D	E	P	H	T	R	S	D	C	P	R	N	F	USER-ID	LOT	H	OWNER NAME
410862	E	1232	0	13	057	0	0	272820	8																						HILLSBOROUGH COUNTY	
410863	E	1232	0	13	057	0	0	272820	8																						HILLSBOROUGH COUNTY	
410864	E	1232	0	13	057	0	0	272820	8																						HILLSBOROUGH COUNTY	
410865	E	1232	0	13	057	0	0	272820	8																						HILLSBOROUGH COUNTY	
410866	E	1232	0	13	057	0	0	272820	8																						HILLSBOROUGH COUNTY	
410867	E	1232	0	13	057	0	0	272820	8																						HILLSBOROUGH COUNTY	
410868	E	1232	0	13	057	0	0	272820	8																						HILLSBOROUGH COUNTY	
410869	E	1232	0	13	057	0	0	272820	8																						HILLSBOROUGH COUNTY	
410870	E	1232	0	13	057	0	0	272820	20																						HILLSBOROUGH COUNTY	
359308	C	2073	Y	13	057	2	3	272820	2	0	0	0	0	0														000000	NO	USGS		
359309	C	2073	Y	13	057	2	3	272820	2	55	65	0	0	0														000000	NO	USGS		
359310	C	2073	Y	13	057	2	3	272820	2	75	0	0	0	0														000000	NO	USGS		
360312	E	1376	Y	13	057	4	2	272820	4																						HILLSBOROUGH CO WASTE MGT INC.	
420513	I	2525	Y	13	057	0	0	272820	6																						HILLSBOROUGH COUNTY SCHOOL BD	
361630	C	1232	Y	13	057	0	0	272820	12	0	459	Y	54	R	0															NO	BRIARWOOD MOBILE HOME PARK	
359235	E	0065	A	13	057	0	0	282820	4	110	120	0	C	50														000000	NO			
362228	C	1160	A	13	057	0	0	282820	4	63	181	0	C	14														000000	NO	HAND, WARREN E.		
390866	C	1271	A	13	057	0	0	282820	4	105	175	N	0	C	35													000000	NO	PELLEM, NATHANIEL J		
313546	E	0000	A	13	057	0	0	282820	6	84	290	0	C	38														000000	NO	1ST BAP CHR		
374095	C	1997	A	13	057	0	0	282820	6	84	423	Y	31	R	9													000000	NO	HAND, WARREN E.		
300118	H	0065	B	13	057	1	2	282820	4	70	102	N	0	C	3													000000	NO			
318684	H	0000	B	13	057	0	0	282820	4	60	160	N	0	C	23													000000	NO	E MORGAN		
363562	C	1809	B	13	057	0	0	282820	4	105	225	Y	7	C	35													000000	NO	HARMONY RANCH MOBILE HOME PARK		
391855	E	0000	D	13	057	0	0	282820	2																						LOLIES, SHARON	
305630	C	1057	D	13	057	0	0	282820	3	69	82	0	C	12														000000	NO	HOLLAND, MRS JAMES		
300100	C	1059	D	13	057	2	1	282820	3	53	84	0	C	900														000000	NO	SAPP, ROBERT		
306761	H	0000	D	13	057	0	0	282820	3	71	124	0	C	0														000000	NO	HOWELL GREEN		
307090	E	0002	D	13	057	3	4	282820	3	52	75	0	C	35														000000	NO	S J RODRIGU		
310713	E	0000	D	13	057	3	4	282820	3	52	71	0	C	12														000000	NO	L E KEEN		
310896	E	0000	D	13	057	0	0	282820	3	73	99	0	C	33														000000	NO	A E COLE		
311604	E	0000	D	13	057	0	0	282820	3	71	90	0	C	29														000000	NO	A PELLAM		
311711	E	0000	D	13	057	0	0	282820	3	59	85	0	C	0														000000	NO	R T STACY		
311865	E	0000	D	13	057	0	0	282820	3	54	78	0	C	17														000000	NO	L C SULLIVA		
312468	C	0000	D	13	057	3	4	282820	3	153	153	0	C	0														000000	NO	MORSE OLUN		
321592	E	0002	D	13	057	1	2	282820	3	63	135	0	C	30														000000	NO	J MURPHY		
321755	E	0000	D	13	057	0	0	282820	3	95	120	0	C	32														000000	NO	J SPENCER		
323103	E	1252	D	13	057	0	0	282820	3	54	94	0	C	10														000000	NO	J MOGLHUYSE		
324674	E	1056	D	13	057	0	0	282820	3	188	201	0	C	30														000000	NO	HIGGINBOTHAM		
326943	E	1056	D	13	057	0	0	282820	3	130	175	0	C	60														000000	NO	HALLMART HO		



SOUTHEAST FLORIDA WATER MANAGEMENT DISTRICT  
WELL CONSTRUCTION PERMITTING

PERMIT SUMMARY FOR YEAR 00 THRU 99  
BASIN: 527 - 33 1:28 H:20 DEPTH:  
BY: COUNTY:

CLASSIFIER: METHOD: USE: CASE DEPTH:

6 PAGE

[illegible]

PAGE 7

BY: COUNTY: BASIN: S:27 - 33 T:26 R:20 DEPTH: DIAMETER: METHOD: USL: CASE DEPTH:

DIAMETER: METHOD: USE: CASE DEPTH:

[illegible]

DATE 11/02/00 23:06:15

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT  
WELL CONSTRUCTION PERMITTING

PAGE 8

000005

PERMIT SUMMARY FOR YEAR 00 THRU 99

BY: COUNTY: BASIN: S-27 - 33 1:28 R-20 DEPTH:

DIAMETER: METHOD: USE: CASE DEPTH:

PERMIT	S	NUMER	E	N	Y	LOC	S	T	R	A	DEPTH	DEPTH	T	R	S	D	C	P	R	N	F	USER-ID	LOT	H	OWNER NAME
312863	E	0000	D	13	057	4	3	312820	4	58	80	0	C	10			000000	NO				000000	NO	B M ASHMORE	
314477	E	0000	D	13	057	3	4	312820	4	63	69	0	C	5			000000	NO				000000	NO	C SUMNER	
334983	E	1160	D	13	057	0	0	312820	4	63	160	0	C	42			000000	NO				000000	NO	PRICES A	
335602	E	1024	D	13	057	0	0	312820	4	147	155	0	C	0			000000	NO				000000	NO	ATLANTIS H	
336598	E	1097	D	13	057	0	0	312820	4	52	97	0	C	0			000000	NO				000000	NO	TERRY, M	
337690	E	1097	D	13	057	0	0	312820	4	32	60	0	C	0			000000	NO				000000	NO	BERKHAN, O	
351900	C	1097	D	13	057	0	0	312820	4	42	60	0	C	0			000000	NO				000000	NO	GARY, EARL	
353101	N	1097	D	13	057	0	0	312820	4	***	CANCELLED	***													GARY, JAMES
360425	N	1097	D	13	057	0	0	312820	4	***	CANCELLED	***													SCOTT, M. B.
365865	N	1160	D	13	057	0	0	312820	4	***	CANCELLED	***													HANEY, JAMES E.
363878	C	1056	D	13	057	1	4	312820	4	70	165	0	C	13			000000	NO				000000	NO	KERSEY JR., BRYANT	
376002	C	1699	D	13	057	0	0	312820	4	78	97	N	0	C	0		000000	NO				000000	NO	VANDEMBERG, GEORGE	
385016	C	1974	D	13	057	0	0	312820	4	57	97	Y	5	R	0		000000	NO				000000	NO	CORDELL, JOHN	
386376	C	1609	D	13	057	0	0	312820	4	95	151	0	C	30			000000	NO				000000	NO	THOMAS, WILLIAM	
390750	C	2169	D	13	057	0	0	312820	4	41	41	N	0	C	0		000000	NO				000000	NO	CHAPMAN, DALLAS R	
397391	C	2169	D	13	057	0	0	312820	4	62	62	N	0	C	3		000000	NO				000000	NO	RIGHT, DEWAYNE	
411006	C	1056	D	13	057	1	3	312820	4	30	65	N	0	C	4		000000	NO				000000	NO	LANE, GILHARD	
415802	N	2405	D	13	057	2	2	312820	4	***	CANCELLED	***													ALLSTATE HOMES
303122	E	0000	G	13	057	0	0	312820	4																
303123	E	0000	J	13	057	0	0	312820	4																
303125	E	0000	J	13	057	0	0	312820	4	21	30	0		0			000000	NO				000000	NO		
303127	E	0000	J	13	057	0	0	312820	4	21	50	0		0			000000	NO				000000	NO		
303128	E	0000	J	13	057	0	0	312820	4	21	40	0		0			000000	NO				000000	NO		
303129	E	0000	J	13	057	0	0	312820	4	21	60	0		0			000000	NO				000000	NO		
303130	E	0000	J	13	057	0	0	312820	4	39	41	0		1			000000	NO				000000	NO		
303131	E	0000	J	13	057	0	0	312820	4	21	40	0		0			000000	NO				000000	NO		
303132	E	0000	J	13	057	0	0	312820	4	21	40	0		0			000000	NO				000000	NO		
303133	E	0000	J	13	057	0	0	312820	4	42	52	0		0			000000	NO				000000	NO		
303134	H	0000	V	13	057	0	0	312820	4	25	35	0		2			000000	NO				000000	NO		
303134	H	0000	V	13	057	0	0	312820	4	21	53	0		2			000000	NO				000000	NO		
303116	H	0000	V	13	057	0	0	312820	8																
415655	I	2525	Y	13	057	0	0	312820	2																HILLS CO AVIATION AUTHORITY
301156	C	2245	Y	13	057	1	1	312820	3	0	60	Y	0	R	0		000000	NO				000000	NO		FLA DEPT OF TRANSPORTATION
415654	I	2525	Y	13	057	0	0	312820	0																HILLS CO AVIATION AUTHORITY
303121	E	0000	A	13	057	0	0	322820	4	60	77	0		2			000000	NO				000000	NO		
307784	E	0000	A	13	057	0	0	322820	4	62	80	0	C	16			000000	NO				000000	NO		
308241	E	0065	A	13	057	3	4	322820	4	41	80	0	C	0			000000	NO				000000	NO		
316333	E	0000	A	13	057	0	0	322820	4	84	128	0		13			000000	NO				000000	NO		F G PEREZ
385065	C	1056	A	13	057	2	2	322820	4	77	130	N	0	C	0		000000	NO				000000	NO		JERNISAN TRUCKING

PAGE 9

WELL CONSTRUCTION PERMITTING  
PERMIT SUMMARY FOR YEAR 00 THRU 99

BY: COUNTY: BASIN: S:27 - 33 I:28 R:20 DEPTH: DIAMETER: METHOD: USE: CASE DEPTH:

PERMIT	U S L I C H N U M B R	E A S I N	G U N T	LOCATION	D U C C S T R	CASE	WELL	U B C O	H A H T A W R S D	SWE E T A L P C	I H L E E C L R	S J U O F	USER-ID	LOT	H	OWNER NAME
307906	E 0000	A	13	057 0 0	322820	6	84	125	O C	12			000000		NO	
307148	H 0000	B	13	057 0 0	322820	4	53	95	N G C	13			000000		NO	
314121	H 0000	E	13	057 0 0	322820	4	79	95	N G C	24			000000		NO	N R HAYES
315823	H 0000	B	13	057 0 0	322820	4	53	70	N O C	17			000000		NO	J B HAYBURN
351314	C 1057	B	13	057 2 2	322820	4	82	162	Y E C	16			000000		NO	FOX, LOWELL
394007	C 1050	B	13	057 3 3	322820	4	79	105	N G C	35			000000		NO	LANE, GIRARD
400974	N 2169	D	13	057 0 0	322820	2	*** CANCELLED ***									HODGE, FRANK
305897	H 0291	D	13	057 1 2	322820	3	164	168	O C	13			000000		NO	DUNCAN, BILLY W
300577	L 0000	D	13	057 4 4	322820	3	53	78	O C	6			000000		NO	T JERNIGAN
300837	E 0065	D	13	057 1 4	322820	3	30	31	O C	3			000000		NO	T W ROGERS
311463	E 0000	D	13	057 0 0	322820	3	49	60	O C	6			000000		NO	J SMITH
337514	C 2167	D	13	057 0 0	322820	3	66	66	O C	0			000000		NO	BOLEYN, PAUL
317959	L 0000	G	13	057 0 0	322820	4	80	180	O C	60			000000		NO	SEARS
315297	E 0000	D	13	057 0 0	322820	4	120	152	O C	0			000000		NO	T JERNIGAN
319919	E 0000	D	13	057 3 4	322820	4	60	140	O C	35			000000		NO	J SLOAN
325840	E 1252	D	13	057 0 0	322820	4	81	116	O C	10			000000		NO	FRANK BOWEN
330415	E 1050	D	13	057 0 0	322820	4	76	144	O C	6			000000		NO	J TRUCKING
330176	L 1050	D	13	057 0 0	322820	4	58	110	O C	27			000000		NO	ALLSTATE HM
330650	E 1356	D	13	057 0 0	322820	4	89	240	O C	75			000000		NO	AYNES T
330911	E 1271	D	13	057 0 0	322820	4	105	142	O C	6			000000		NO	AKRY W K
330312	E 1037	D	13	057 0 0	322820	4	52	70	O C	17			000000		NO	CREWS, G W
371001	C 1160	D	13	057 0 0	322820	4	57	140	O C	32			000000		NO	ELLIOTT, WILLIAM
392784	K 1905	D	13	057 0 0	322820	4	*** CANCELLED ***									FORD, DON S
303120	H 0000	V	13	057 0 0	322820	4	*** CANCELLED ***									
363308	C 1049	Y	13	057 3 3	322820	0	0	45	O R	0			000000		NO	FLA DEPT OF TRANSPORTATION
363309	K 1049	Y	13	057 3 3	322820	0	*** CANCELLED ***									FLA DEPT OF TRANSPORTATION
363310	C 1049	Y	13	057 3 3	322820	0	0	45	O R	0			000000		NO	FLA DEPT OF TRANSPORTATION
363311	C 1049	Y	13	057 3 3	322820	0	0	45	O R	0			000000		NO	FLA DEPT OF TRANSPORTATION
363313	C 1049	Y	13	057 3 3	322820	0	0	32	O R	0			000000		NO	FLA DEPT OF TRANSPORTATION
363314																

DATE 12/02/06 23:00:15

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT  
WELL CONSTRUCTION PERMITTING

PAGE 10

000005

PERMIT SUMMARY FOR YEAR 00 THRU 99

BY: COUNTY: BASIN: 5127 - 33 1:28 RE:20 DEPTH: DIAMETER: METHOD: USE: CASE DEPTH:

PERMIT	SYMBOL	DATE	TIME	LOCATION	DEPTH	DIAMETER	METHOD	USE	CASE DEPTH	OWNER NAME	
365617	C 2164	Y	13 057 1 3	322820	3	0	61	GR	0	NO	0 0 T
365619	C 2164	Y	13 057 2 4	322820	3	0	52	UR	0	NO	0 0 T
365620	C 2164	Y	13 057 2 4	322820	3	0	0	CR	0	NO	0 0 T
365621	C 2164	Y	13 057 2 4	322820	3	0	165	CR	0	NO	0 0 T
365623	C 2164	Y	13 057 4 2	322820	3	0	40	GR	0	NO	0 0 T
365626	C 2184	Y	13 057 4 2	322820	3	0	149	CR	0	NO	0 0 T
365627	C 2184	Y	13 057 4 2	322820	3	0	100	CR	0	NO	0 0 T
365628	C 2184	Y	13 057 3 4	322820	3	0	70	CR	0	NO	0 0 T
365629	C 2184	Y	13 057 4 3	322820	3	0	60	CR	0	NO	0 0 T
365630	C 2184	Y	13 057 3 0	322820	4	42	148	0	900	NO	0 0 T
365635	C 1947	A	13 057 0 0	332820	4	105	160	Y 10 R	22	NO	GENERAL TELEPHONE CO
365636	C 1947	A	13 057 0 0	332820	6	87	250	0 C	39	NO	C C SHEPPAR
365637	C 1232	B	13 057 0 0	332820	4	96	126	N 0 C	10	NO	BOWEN JR, B F
365638	C 1232	B	13 057 0 0	332820	4	50	110	N 0 C	8	NO	J PETERSON
365639	C 1232	B	13 057 0 0	332820	4	54	144	N 0 C	0	NO	L PREVATT
365640	C 1232	B	13 057 0 0	332820	4	122	162	N 0 C	3	NO	L PREVATT
365641	C 1232	B	13 057 0 0	332820	4	59	150	Y 7 C	20	NO	L DYKES CONSTRUCTION
365642	C 1183	D	13 057 0 0	332820	3	100	250	N 0 C	59	NO	MEADE UTIL
365643	C 1183	D	13 057 0 0	332820	3	70	74	0 C	65	NO	MCDONOUGH, PAULINE
365644	C 1183	D	13 057 0 0	332820	3	78	108	0 C	1	NO	F H CRIBBS
365645	C 1183	D	13 057 0 0	332820	3	41	46	0 C	10	NO	L GLADEN
365646	C 1183	D	13 057 0 0	332820	3	65	80	0 R	0	NO	T AVERSA
365647	C 1183	D	13 057 0 0	332820	3	75	91	0	22	NO	A GARCIA
365648	C 1183	D	13 057 0 0	332820	3	60	100	0	7	NO	P BOLEYH
365649	C 1183	D	13 057 0 0	332820	3	115	130	0 C	14	NO	P F STODSTI
365650	C 1183	D	13 057 0 0	332820	3	61	101	0 C	18	NO	E KIES
365651	C 1183	D	13 057 1 4	332820	3	63	92	0 C	20	NO	G STRICKLAN
365652	C 1183	D	13 057 0 0	332820	3	73	123	0 C	20	NO	W JOHNSON
365653	C 1183	D	13 057 0 0	332820	3	94	135	0 C	17	NO	E HENDERSON
365654	C 1183	D	13 057 0 0	332820	3	41	75	0 C	12	NO	O MIRACLE
365655	C 1183	D	13 057 0 0	332820	3	63	102	0 C	15	NO	L SHEWMARE
365656	C 1183	D	13 057 0 0	332820	3	95	95	0 C	11	NO	J WICKE
365657	C 1183	D	13 057 0 0	332820	4	73	123	0 C	0	NO	GILBERT BRO
365658	C 1183	D	13 057 0 0	332820	4	60	151	0 C	32	NO	F W GAYLORD
365659	C 1183	D	13 057 0 0	332820	4	64	146	0 C	27	NO	KEENE
365660	C 1183	D	13 057 0 0	332820	4	70	75	0 C	25	NO	SHOP ON CO
365661	C 1183	D	13 057 0 0	332820	4	97	512	0 C	87	NO	J BENNETT
365662	C 1183	D	13 057 0 0	332820	4	70	97	0 C	31	NO	R BURKHARDT
365663	C 1183	D	13 057 0 0	332820	4	84	180	0 C	51	NO	COLLINS R

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\* DATE 12/02/96 23:08:15

## SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

PAGE 11

## WELL CONSTRUCTION PERMITTING

## PERMIT SUMMARY FOR YEAR 00 THRU 99

\* 000005

BY: COUNTY: BASIN: S:27 - 33 1:20 R:20 DEPTH: DIAMETER: METHOD: USE: CASE DEPTH:

PERMIT	S	NUMBR	E	N	Y	Q	Q	S	T	R	A	DEPTH	DEPTH	T	R	S	D	C	P	R	H	F	USER-IC	LOT	H	OWNER NAME
336433	H	1160	D	13	057	3	2	332820	4	40	145	0	C	45					000000				NO			FRESE, D
33035	H	1056	D	11	057	0	0	332820	4	52	129	0	C	16					000000				NO			ALSTATE HWS
342829	H	1233	D	13	057	0	0	332820	4	97	119	0	C	7					000000				NO			MASCALI, F
340115	C	1204	D	13	057	0	0	332820	4	63	120	0	C	0					000000				NO			STONE, DONALD
353073	C	1855	D	13	057	0	0	332820	4	52	80	0	C	15					000000				NO			PICCIRILLO, VINCE
363486	C	1974	D	13	057	0	0	332820	4	61	100	0	R	14					000000				NO			ZAMBONI, JEFF
370298	C	1943	D	13	057	0	0	332820	4	105	195	0	C	30					000000				NO			SMITH, SONNY
373022	C	2193	D	13	057	0	0	332820	4	47	97	N	D	14									NO			WOODS, WAYNE
373227	C	1160	D	13	057	0	0	332820	4	74	129	N	D	21					000000				NO			COOK, BILLY
380723	C	2169	D	13	057	0	0	332820	4	70	70	N	D	0					000000				NO			RUSSELL, E. T.
384924	C	2169	D	13	057	0	0	332820	4	114	114	N	D	0					000000				NO			LAMBERT, EDITH
390651	C	2258	D	13	057	0	0	332820	4	51	115	N	D	30					000000				NO			HOGAN, TRIP
410288	I	1817	D	13	057	0	0	332820	4	105	200	N	D	30								0000	NO			FRESE, GEORGE MR
414686	I	0000	D	13	057	0	0	332820	6	105	307	0	C	0					000000				NO			L STRAUGHN
461974	C	1855	H	13	057	0	0	332820	4	90	105	0	C	20					000000				NO			PICCIRILLO, VINCE
476584	C	2216	H	13	057	0	0	332820	6	100	195	N	D	13					000000				NO			ALMEDA, A. F.
474162	I	1233	Y	13	057	0	0	332820	2	20	20	Y	I	0								0000	NO			L DYKES CONSTRUCTION

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File: Cast Life Corp  
FLD0044 2766 2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

NOV 3 1988

Mr. Lewis H. Thompson  
P.O. Box 733  
Mango, Florida 33550

Dear Mr. Thompson:

On September 12, 1988, your well water was sampled by the Environmental Protection Agency (EPA) as part of an investigation into possible ground-water contamination in the area. The results from this investigation have been forwarded to our office. This letter is to inform you of the results from the analysis of your well water sample.

The sample collected from your well was analyzed for metals, pesticides, PCBs, and extractable and volatile organics. There were no constituents detected which exceed EPA's National Primary Drinking Water Regulations or any other health-based criteria. As such, the use of your well water should not result in any adverse health effects.

If you have any questions or if we can be of any further assistance, please call Mr. Glenn Adams of my staff at 404/347-3866.

Sincerely,

James S. Kutzman, Chief  
Ground-Water Protection Branch



1927 LAKESIDE PARKWAY  
SUITE 614  
TUCKER, GEORGIA 30084  
404-938-7710

C-586-7-8-218

August 29, 1988

Mr. Narindar Kumar  
Site Investigation and Support Branch  
Waste Management Division  
Environmental Protection Agency  
345 Courtland Street, N. E.  
Atlanta, Georgia 30365

Subject: Study Plan  
Cast Crete Corporation  
Tampa, Florida  
TDD No. F4-8802-14  
Revision 0

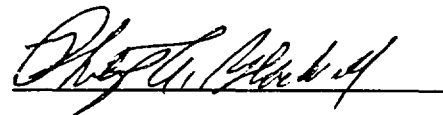
Dear Mr. Kumar:

Enclosed please find one copy of the Study Plan for Cast Crete Corporation in Tampa, Florida. If you have any questions or comments, please do not hesitate to contact me.

Very truly yours,

  
Keith Grezlik  
Project Manager

Approved:



KG/kw

Enclosure (1)

**STUDY PLAN  
SITE SCREENING INVESTIGATION  
CAST-CRETE CORPORATION  
TAMPA, FLORIDA  
EPA ID #: FLD004427662**

Prepared Under  
TDD No. F4-8802-14  
CONTRACT NO. 68-01-7346

Revision 0

FOR THE

**WASTE MANAGEMENT DIVISION  
U.S. ENVIRONMENTAL PROTECTION AGENCY**

August 26, 1988

**NUS CORPORATION  
SUPERFUND DIVISION**

Prepared By

  
Keith Grezlik  
Project Manager

Reviewed By

  
Assistant Regional  
Project Manager

Approved By

  
Murray Warner, P.E.  
Regional Project Manager

## **NOTICE**

The information in this document has been funded wholly by the United States Environmental Protection Agency (EPA) under Contract Number 68-01-7346 and is considered proprietary to the EPA.

This information is not to be released to third parties without the expressed or written consent of the EPA.

## TABLE OF CONTENTS

<b><u>Section</u></b>	<b><u>Page</u></b>
<b>1.0 INTRODUCTION</b>	<b>1</b>
1.1 Objectives	1
1.2 Scope of Work	2
1.3 Schedule	2
1.4 Personnel	3
1.5 Permits and Authorization Requirements	3
1.6 Site History and Description	3
1.7 Regional Hydrogeology	6
 <b>2.0 SAMPLING INVESTIGATION</b>	 <b>6</b>
2.1 Soil Sampling	6
2.2 Groundwater Sampling	8
2.3 Analytical and Container Requirements	8
2.4 Methodology	9
2.4.1 General	9
 <b>FIGURES</b>	
Figure 1 Site Location Map	4
Figure 2 Site Layout Map	5
 <b>TABLES</b>	
Table 3-1 Sample Code Descriptions and Locations	7
 <b>References</b>	 <b>10</b>

**STUDY PLAN  
SITE SCREENING INVESTIGATION  
CAST-CRETE CORPORATION  
TAMPA, HILLSBOROUGH COUNTY, FLORIDA  
EPA ID #FLD004427662  
TDD NO. F4-8802-14**

**1.0 INTRODUCTION**

The NUS Corporation Region 4 Field Investigation Team (FIT) has been tasked by the U.S. Environmental Protection Agency (EPA), Waste Management Division to conduct a site screening investigation (SSI) at the Cast-Crete facility in Hillsborough County, Florida. The investigation will be performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The task will be performed to satisfy the requirements stated in Technical Directive Document (TDD) number F4-8802-14.

**1.1 Objectives**

The objectives of this sampling investigation are to collect information to assist in developing a site-specific preliminary HRS score and to determine if further investigation is required at this site.

Specific elements are:

- Obtain information to prepare a site specific preliminary HRS
- Provide EPA the necessary information to make decisions on any other actions warranted at the site.

## **1.2     Scope of Work**

The scope of this investigation will include the following activities:

- Obtain and review background materials relevant to HRS scoring of site
- Obtain aerial photographs and maps of site, if possible
- Obtain information on local water systems
- Evaluate target population within a 4-mile radius of the site with regard to groundwater use, surface water use, and possibility of direct contact or fire and explosion hazard
- Conduct a survey of private wells
- Determine location and distance to nearest potable well
- Develop a site sketch
- Collect environmental samples

## **1.3     Schedule**

Week of 12 September 1988

## **1.4     Personnel**

Project Manager - Keith Grezlik

Other personnel as required

## **1.5     Permits and Authorization Requirements**

EPA is responsible for obtaining access to the site and permission to take photographs of site. In addition, EPA is responsible for all permits which may be required to accomplish this task.

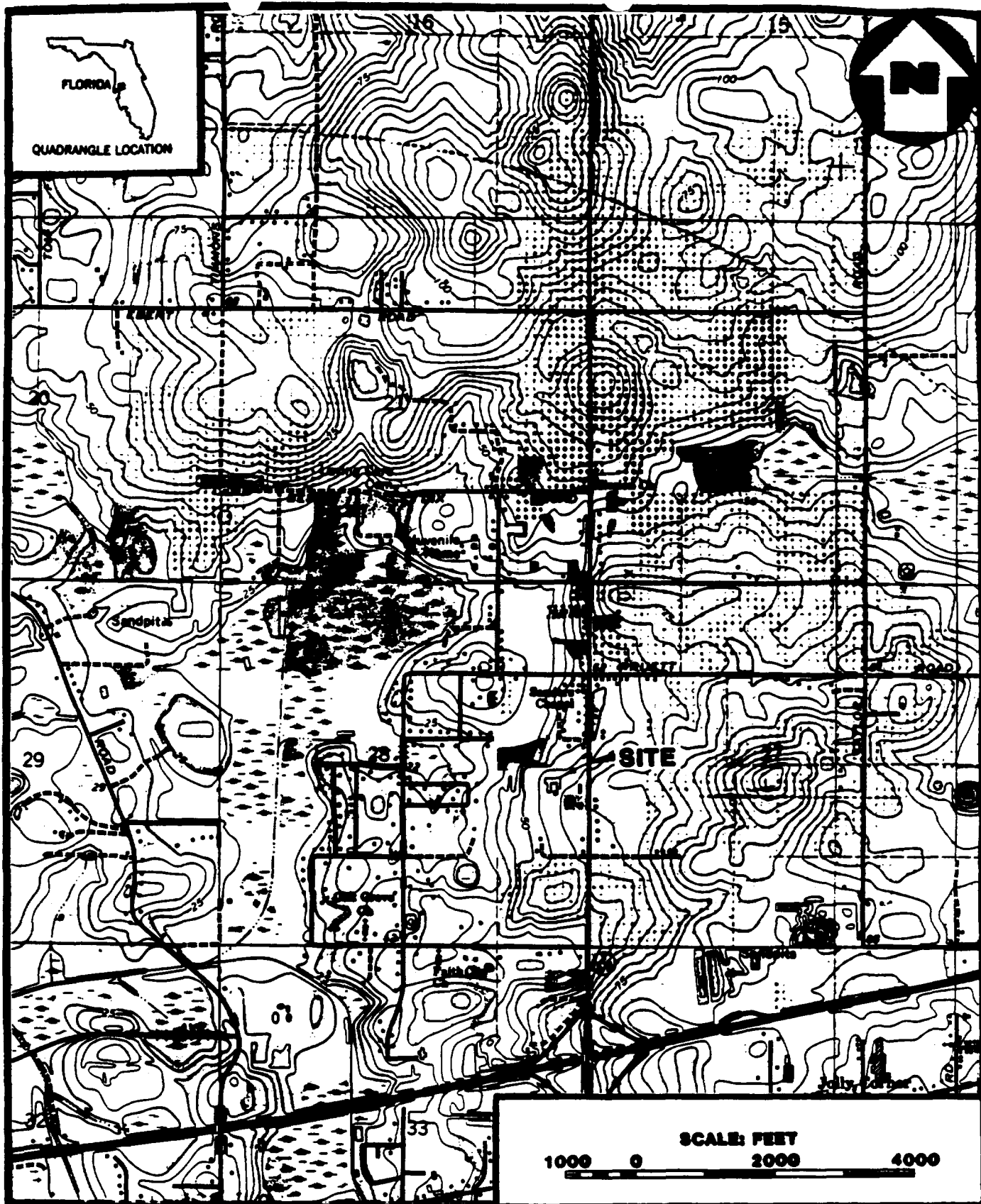
## **1.6     Site History and Description**

Cast-Crete has been a concrete product manufacturer since 1955. The company uses oil-lubricated forms to produce reinforced beams, lintels, seals and drainage structures (Refs. 1,3). Cement trucks used to mix concrete for the operation were cleaned eight to ten times per day. Truck exteriors were washed with water and engines steam cleaned with degreasing solutions. Effluent from these operations together with oil-contaminated runoff flowed to an unlined holding pond located in the northwest corner of the property. Excess pondwater is continuously discharged into a drainage ditch via a concrete flume. The drainage ditch discharges into a swamp. Drainage from the swamp then flows into Six Mile Creek. The quantity of detergents, lubricating oil and organic degreasing solvents deposited in the Cast-Crete holding impoundment is unknown (Refs. 2,3).

The Hillsborough County Environmental Protection Commission (HCEPC) initially reported violations of Class III Surface Water Standards in site discharge and in receiving waters downstream of the discharge point (Ref. 3). Still no effort was made by Cast-Crete to secure a permit. On August 8, 1985, FDER entered a Final Order requiring Cast-Crete to apply for an Industrial Wastewater Permit or cease discharging wastewater from the facility. Although Cast-Crete appealed the Order, they lost in April 15, 1986. The company subsequently halted rock-washing operations and ceased discharging wastewater from the facility (Refs. 4,5,6).

A private well owned by Mr. Sonny Smith is the nearest groundwater well to the Cast-Crete property. Originally, the well was completed at 50 feet. However, the opening of the Hillsborough Heights County Landfill encouraged Mr. Smith to have his well deepened to 200 feet (Ref. 1). This landfill is located on the east side of State Route 579 and is used for disposal of garbage and other types of refuse. Residents in the Cast-Crete study area obtain their water from private wells. Total population served by groundwater from the Floridan aquifer within 3 miles of the site is 1037 (273 houses x 3.8). Approximately 3000 houses are located within 3 miles of Cast-Crete (Ref. 11).





BASE MAP IS A PORTION OF THE U.S.G.S. 7.5 MINUTE QUADRANGLE THONOTOSASSA, FLORIDA, 1974.

**SITE LOCATION MAP**  
**CAST-CRETE CORPORATION**  
**TAMPA, FLORIDA**

## **1.7     Regional Hydrogeology**

Cast-Crete is located in the Gulf Coastal Lowlands of the Mid-peninsular physiographic zone of Florida. This region is characterized by depositional slopes and marine terraces formed by the regression of the Gulf of Mexico (Ref. 8). The climate is humid with an annual precipitation of 50.2 inches (Ref. 7). Elevation of Hillsborough County ranges from 160 feet AMSL near Polk County to sea level at Tampa Bay.

The hydrogeology of Hillsborough County can be described in terms of three water bearing zones. The surficial aquifer is composed of Pleistocene and recent sand, clay, and marl and ranges from 0 to 150 feet thick. A secondary artesian aquifer occurs in the sand and limestone of the Miocene Hawthorn Formation. Although the Hawthorn reaches a maximum thickness of 250 feet in eastern Hillsborough County, it has been almost totally removed by erosion in the Tampa area (Ref. 9). The principal artesian water bearing unit, the Floridan aquifer, consists of Eocene to Miocene units of alternating limestones and dolomitic limestones. The fresh water zone of the Floridan aquifer is approximately 1000 feet thick in the study area and its upper surface is 55 feet below land surface at the Cast-Crete site. Absence of a confining unit and development of karst topography less than 4 miles from Cast-Crete strongly suggest that a hydrologic connection exists between the surficial and Floridan aquifers (Ref. 10)

## **2.0     SAMPLING INVESTIGATION**

The sampling investigation will include the collection of surface soil and sediment from the holding ponds and truck cleaning areas, as well as background and drainage pathway locations. In addition, groundwater will be collected from one of the landfill monitoring wells, from two temporary wells placed onsite, from the private well closest to the facility, and from a background location. Samples will be analyzed for extractable and purgeable organic compounds, pesticides, PCB's, cyanide, and metals. Analyses will be performed under the Contract Laboratory Program (CLP).

### **2.1     Surface Soil Sampling**

Surface soil samples will consist of SS-01, a background sample to be collected topographically upgradient of Cast-Crete, SS-02 and -03, to be collected from the truck washing area, and SS-04, which will be collected in that holding pond which appears to

**TABLE 3-1****SAMPLE CODE DESCRIPTIONS AND LOCATIONS**

<b>Sample Code</b>	<b>Description</b>	<b>Location/Rationale</b>
CC-SS-01	Surface Soil	Topographically upgradient of site/background
CC-SS-02	Surface Soil	Truck washing area/detection
CC-SS-03	Surface Soil	Truck washing area/detection
CC-SS-04	Surface Soil	Holding Pond/detection
CC-MW-01	Monitoring Well	A monitoring well on the Taylor Road Landfill/isolation
CC-TW-01	Temporary Well	Hydrologically upgradient of site/background
CC-TW-02	Temporary Well	Truck washing area/detection
CC-TW-03	Temporary Well	Truck washing area/detection
CC-PW-01	Private Well	Smith Property Well/detection

receive surface drainage from the truck washing area. If there is standing water in this pond, the sample will then be classified as sediment.

## **2.2 Groundwater Sampling**

Groundwater samples will consist of CC-MW-01, to be collected from that monitoring well on Taylor Road Landfill which can be determined to be most directly upgradient of the Cast-Crete facility. In addition, three temporary wells will be emplaced, CC-TW-01 will be used as a background and placed hydrologically upgradient from Cast-Crete but not on the landfill. Well numbers TW-02 and TW-03 will be placed on the Cast-Crete facility at the truck washing area. The private well closest to Cast-Crete will also be sampled. This is a well belonging to Mr. Sonny Smith, whose residence is 1000 feet from Cast-Crete.

## **2.3 Analytical and Container Requirements**

Sample containers used will be in accordance with the requirements specified in the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986. The following is a description of the analysis and types of containers required.

<u>Analyses</u>	<u>Container</u>	<u>Preservatives**</u>
Ext. Organics, Water	1 gal., amber glass*	None
Volatile Organics, Water	40 ml., glass vial*	4 drops conc. HCL to pH <2
Metals, Water	1 liter, plastic	50% HNO <sub>3</sub> to pH <2
Cyanide, Water	1 liter, plastic	NaOH to pH >12
Ext. Organics, Soil/Sediment	8 oz., glass*	None
Volatile Organics Soil/Sediment	4 oz., glass*	None
Inorganics, Soil/Sediment	8 oz., glass*	None

\* Sample container lids are lined with teflon.

\*\* All samples will be iced to 4°C upon collection.

### **3.4     Methodology**

#### **3.4.1   General**

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation will be in accordance with the standard operating procedures as specified in Section 3 and 4 of the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

All laboratory analyses and laboratory quality assurance procedures used during this investigation will be in accordance with standard procedures and protocols as specified in the Analytical Support Branch Operations and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division; revised June 1, 1985 or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

## REFERENCES

1. NUS FIT 4, 1988. Field Logbook for Preliminary Reassessment of Cast-Crete Corporation. TDD No. F4-8802-14.
2. Feeny, Craig F., 1986. Florida Department of Environmental Regulation. Preliminary Assessment of Cast-Crete Corporation of Florida. September 30, 1986.
3. Florida District Court of Appeal, 1985. Initial Brief of Appellant: Cast-Crete Corporation of Florida, Inc. vs. Florida Department of Environmental Regulation. November 5, 1985.
4. Florida Division of Administrative Hearings, February 7, 1985.
5. Feeny, Craig F., Florida Department of Environmental Regulation. Memo to C. Hill, September 25, 1986.
6. Florida Department of Environmental Regulation, 1986. Site Inspection Report, May 2, 1986.
7. USEPA, 1982. Uncontrolled Hazardous Waste Site Ranking System. A Users Manual. Federal Register, Vol. 47, No. 137. pp 31219-31243.
8. White, William A., 1970. The Geomorphology of the Florida Peninsula. Bureau of Geology, Bulletin No. 51, 164 pp.
9. Menke, C.G. E.W. Meredith, and W.S. Wetterhall, 1961. Water Resources of Hillsborough County, Florida. Florida Geological Survey, Report of Investigations No. 25, 101 pp.
10. Ryder, P.H., 1985. Hydrology of the Floridan Aquifer System in West-Central Florida: U.S. Geological Survey Professional Paper 1403-F, 66pp.
11. Feeny, Craig F., Florida 1986. Interoffice Memo to Courtland Hill. September 26, 1986.

FEB 22 1988

REF: 4WD-SISB

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Bill Kardash  
Cast-Crete Corp.  
Box 1600  
Tampa, FL 33637

RE: Cast-Crete Corp  
Tampa, FL

Dear Mr. Kardash:

The United States Environmental Protection Agency (EPA), pursuant to the authority and requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act (SARA), Public Law 99-499, is planning to conduct an investigation of the above-referenced site. EPA has reason to believe that there may be a release or threat of a release of hazardous substances from the site into the surrounding environment. The purpose of the investigation is to determine the nature and extent of any contamination at the site and to determine what, if any, further response action would be appropriate.

As per your conversation with me on February 18, 1988, EPA was granted permission for access to your property beginning on or about February 29, 1988. Activities to be conducted during the investigation may include any of the following:

1. Inspect the premises;
2. Sketch and/or photograph the premises;

The above activities will be conducted by personnel from EPA Region IV's Field Investigation Team (FIT), NUS Corporation. NUS will contact you prior to the actual site visit to make final arrangements and note any changes.

If you have any questions, please contact me at (404) 347-2234. Your cooperation in this matter is appreciated.

Sincerely,

Felicia Barnett  
Environmental Engineer  
Site Assessment Section

FBarnett:cco:2/18/88

RIGHT TO ACCESS/PHOTOGRAPH DOCUMENTATION

Access to the Cast-Crete Corp in Tampa, FL  
Site Name

was granted to EPA and its representatives on week 8 2/29/88, for inspection  
no samples

by Mr. Bill Kardash on 2/18/88  
Owner/Owner's Representative Date

Permission was also granted to take photographs. Any areas not to be photographed will be noted below.

Felicia Barnett 2/18/88  
EPA Project Manager Date

Mr. Bill Kardash  
Cast-Crete Corp.  
Box 1600  
Tampa, FL 33687  
(813) 621-4641

SR 579  
3/4 mile N of I-4

Call to give specific day



REGION: 04  
STATE : FL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 255  
RUN DATE: 07/16/87  
RUN TIME: 18:16:47

M.2 - SITE MAINTENANCE FORM

EPA ID : FLD004427662		* ACTION: _	*		
SITE NAME: CAST CRETE CORPERATION	SOURCE: T	* _____	*		
STREET : SR 579 3/4 MI.NORTH OF I-4	CONG DIST: 07	* _____	*		
CITY : TAMPA	ZIP: 33610	* _____	*		
CNTY NAME: HILLSBOROUGH	CNTY CODE : 057	* _____	*		
LATITUDE : 28/01/02.0	LONGITUDE : 082/18/13.2	* __/__/__.	*		
LL-SOURCE: R	LL-ACCURACY:	* _	*		
SMSA : 8280	HYDRO UNIT: 03100205	* _____	*		
INVENTORY IND: Y	REMEDIAL IND: Y	REMOVAL IND: N	FED FAC IND: N	* _ _ _ _	*
NPL IND: N	NPL LISTING DATE:	NPL DELISTING DATE:		* _ _/ _ _/ _ _	*
SITE/SPILL IDS:		* _ _ _ _ _	*		
RPM NAME: JOE YOUNG	RPM PHONE: 404-347-2234	* _____	*		
SITE CLASSIFICATION:		SITE APPROACH:	* _	*	
DIOXIN TIER:	REG FLD1:	REG FLD2:	* _ _ _ _	*	
RESP TERM: PENDING ( )	NO FURTHER ACTION ( )	* PENDING ( _ )	NO FURTHER ACTION ( _ )	*	
ENF DISP: NO VIABLE RESP PARTY ( )	VOLUNTARY RESPONSE ( )	* _ _	*		
ENFORCED RESPONSE ( )	COST RECOVERY ( )	* _ _	*		
SITE DESCRIPTION:		* _____	*		
		* _____	*		
		* _____	*		
		* _____	*		

REGION: 04  
STATE : FL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 256  
RUN DATE: 07/16/87  
RUN TIME: 18:16:47

M.2 - PROGRAM MAINTENANCE FORM

SITE: CAST CRETE CORPERATION

EPA ID: FLD004427662 PROGRAM CODE: H01 PROGRAM TYPE:

PROGRAM QUALIFIER: ALIAS LINK :

PROGRAM NAME: SITE EVALUATION

DESCRIPTION:

\* ACTION: \_

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REGION: 04  
STATE : FL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 257  
RUN DATE: 07/16/87  
RUN TIME: 18:16:47

M.2 - EVENT MAINTENANCE FORM

			* ACTION: _			*		
SITE: CAST CRETE CORPORATION								
PROGRAM: SITE EVALUATION								
EPA ID: FLD004427662			PROGRAM CODE: H01		EVENT TYPE: DS1			
FMS CODE:		EVENT QUALIFIER :		EVENT LEAD: S		* _ _ _ _ *		
EVENT NAME:		DISCOVERY		STATUS:		* _ _ _ _ *		
DESCRIPTION:								
* _ _ _ _ _ *								
* _ _ _ _ _ *								
* _ _ _ _ _ *								
* _ _ _ _ _ *								
ORIGINAL		CURRENT		ACTUAL				
START:		START:		START: 07/02/86		* _/_/_/_ _/_/_/_ _/_/_/_ *		
COMP :		COMP :		COMP : 07/22/86		* _/_/_/_ _/_/_/_ _/_/_/_ *		
HQ COMMENT:								
* _ _ _ _ _ *								
RG COMMENT:								
* _ _ _ _ _ *								
COOP AGR #		AMENDMENT #		STATUS		STATE %		
						0		
* _ _ _ _ _ *								

REGION: 04  
STATE : FL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 258  
RUN DATE: 07/16/87  
RUN TIME: 18:16:47

M.2 - EVENT MAINTENANCE FORM

SITE: CAST CRETE CORPERATION			* ACTION: _		*
PROGRAM: SITE EVALUATION					
EPA ID: FLD004427662	PROGRAM CODE: H01	EVENT TYPE: PA1			
FMS CODE:	EVENT QUALIFIER :	EVENT LEAD: S	* _	_	*
EVENT NAME: PRELIMINARY ASSESSMENT	STATUS:		* _	_	*
DESCRIPTION:					
			* _	_	*
			* _	_	*
			* _	_	*
			* _	_	*
ORIGINAL	CURRENT	ACTUAL			
START:	START:	START:	* _/_/_	_/_/_	_/_/_ *
COMP :	COMP :	COMP : 06/30/87	* _/_/_	_/_/_	_/_/_ *
HQ COMMENT:					
			* _	_	*
RG COMMENT:					
			* _	_	*
COOP AGR #	AMENDMENT #	STATUS			
STATE %					
0			* _	_	_ *

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L A

M-2 - SITE MAINTENANCE FORM

*new site*

JUL 22 1993

ACTION: -

EPA ID: LD 004427662

SITE NAME: East Crete Corporation SOURCE: S

STREET: SR 579 1/4 mile north of I-4 CONG DIST: 07

CITY: Tampa ZIP: 33610

CNT. NAME: Hillsborough CNTY CODE: 057

LATITUDE: 27 58 15.0 LONGITUDE: 082 20 10

SMSA: --- HYDRO UNIT: ---

INVENTORY IND: X REMEDIAL IND: X REMOVAL IND: N FED FAC IND: N

NPL IND: --- NPL LISTING DATE: 1 NPL DELISTING DATE: 1

APPROACH: --- SITE CLASS: ---

SITE/SPILL IDS: ---

RPM NAME: --- RPM PHONE: ---

DIOXIN TIER: --- REG FLD1: --- REG FLD2: ---

RESP TERM: PENDING ( ) NO FURTHER ACTION ( )

ENF RESP: NO VIABLE RESP PARTY ( ) VOLUNTARY RESPONSE ( )

ENFORCED RESPONSE ( ) COST RECOVERY ( )

SITE DESCRIPTION:

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L A

PAGE: 17  
RUN DATE: 85/06/17  
RUN TIME: 10:32:41

M.2 - EVENT MAINTENANCE FORM

ACTION: -

SITE: Cast-Crete Corporation

PROGRAM: \_\_\_\_\_

EPA ID: \_\_\_\_\_ PROGRAM CODE: HPV EVENT TYPE: DS

FMS CODE: \_\_\_\_\_ EVENT QUALIFIER: \_\_\_\_\_ EVENT LEAD: 5

EVENT NAME: \_\_\_\_\_ STATUS: \_\_\_\_\_

DESCRIPTION:

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ORIGINAL

CURRENT

ACTUAL

START: \_\_/\_\_/\_\_

START: \_\_/\_\_/\_\_

START: 02/02/86

COMP: \_\_/\_\_/\_\_

COMP: \_\_/\_\_/\_\_

COMP: \_\_/\_\_/\_\_

H3 COMMENT:

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RG COMMENT:

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COOP AGR #

AMENDMENT #

STATUS

STATE X

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